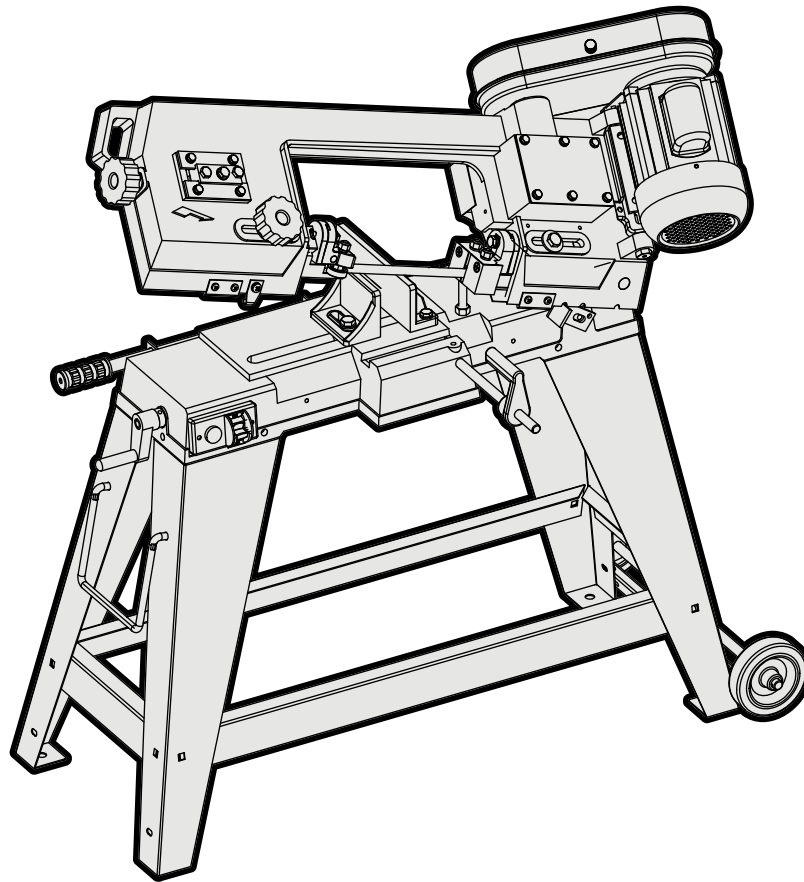




MODEL 3970T

4 INCH x 6 INCH METAL BANDSAW

Instruction Manual



NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:



1-800-232-1195 (M-F 8AM-5PM CST)



TECHSUPPORT@WENPRODUCTS.COM

IMPORTANT: Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

For replacement parts and the most up-to-date instruction manuals, visit ***WENPRODUCTS.COM***

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To purchase accessories for your tool, visit **WENPRODUCTS.COM**

Replacement Blades (Part No. 3970-044)

INTRODUCTION

Thanks for purchasing the WEN Metal Bandsaw. We know you are excited to put your tool to work, but first, please take a moment to read through the manual. Safe operation of this tool requires that you read and understand this operator's manual and all the labels affixed to the tool. This manual provides information regarding potential safety concerns, as well as helpful assembly and operating instructions for your tool.

 **SAFETY ALERT SYMBOL:** Indicates danger, warning, or caution. The safety symbols and the explanations with them deserve your careful attention and understanding. Always follow the safety precautions to reduce the risk of fire, electric shock or personal injury. However, please note that these instructions and warnings are not substitutes for proper accident prevention measures.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.


At WEN, we are continuously improving our products. If you find that your tool does not exactly match this manual, please visit wenproducts.com for the most up-to-date manual or contact our customer service at **1-800-232-1195**.

Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.

SPECIFICATIONS

Model Number	3970, 3970T
Motor	120V, 60 Hz, 4.6A
Saw Blade	64-1/2 in. x 1/2 in., 14 TPI, bimetal
Square Cutting Capacity	4 x 6 inches (90°)
	3-1/2 in. x 3 in. (45°)
Round Cutting Capacity	∅ 4-1/2 in. (90°)
	∅ 3 in. (45°)
Cutting Angle Adjustment	0 to 45°
Blade Speed	80, 120, 180 FPM
Oil Type	L-CKE gear oil, ISO VG 220 (SAE 90, AGMA 5)
Oil Quantity	3 fl oz. (90 mL)
Weight	109 pounds
Product Dimensions	37 in. x 20-1/2 in. x 38 in.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

WORK AREA SAFETY

- 1. Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY


- 1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- 2. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- 3. Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- 5. When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

PERSONAL SAFETY

- 1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- 2. Use personal protective equipment. Always wear eye protection.** Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.
- 3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- 4. Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- 5. Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

POWER TOOL USE AND CARE

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

8. Use clamps to secure your workpiece to a stable surface. Holding a workpiece by hand or using your body to support it may lead to loss of control.

9. KEEP GUARDS IN PLACE and in working order.

SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.


CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. 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 with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

SPECIFIC RULES FOR YOUR METAL BANDSAW

 **WARNING!** Do not operate the power tool until you have read and understood the following instructions and the warning labels.

SAW BLADE SAFETY

1. Always wear protective gloves when handling saw blades.
2. Only use blades with correct size and type for both your Metal Bandsaw and your workpiece.
 - The size of the saw blade is 64-1/2 x 1/2 inches.
 - The blade material is bimetal with 14 TPI.
3. Never use damaged or deformed saw blades. Only use sharp blades.
4. Install the saw blade in the correct orientation indicated in the instructions (see “Changing the Saw Blade”, page 16).
5. Keep hands out of path of saw blade. Never use your hands to remove metal chips by hand. Use a brush at all times.
6. Never reach around saw blade or reach in back of the saw blade.
7. The use of accessories or attachments not recommended by the manufacturer may result in a risk of personal injury.

PERSONAL SAFETY

1. Operate in a well ventilated area. Keep the floor area around the Metal Bandsaw level and free of slippery substances or other tripping hazards.
2. Wear ANSI-approved safety goggles to protect your eyes from sparks and metal chips. Use hearing protection to protect yourself from hearing loss.

3. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to pacemakers could cause pacemaker interference or pacemaker failure.

4. Wear work gloves when handling saw blades. DO NOT wear gloves, neckties, jewelry, or loose clothing while operating the saw.

5. Metal chips are harmful to your health. Use NIOSH-approved dust masks or other respiratory protection during operation and cleaning.

6. Always turn off and unplug the Metal Bandsaw before making any adjustments or repair tasks. Never adjust the Metal Bandsaw or the workpiece while the saw is running.

7. Only use the Metal Bandsaw to cut metal.

PREPARING THE METAL BANDSAW

When transporting the Metal Bandsaw, use the transportation handle and roll the assembled saw with the wheels. Never carry the device by its guards or its accessories.

1. Examine the Metal Bandsaw for any damaged or missing parts. Replace or repair damaged parts before operation. Periodically check that all nuts, bolts and other fasteners are properly tightened.

SECURE YOUR WORKPIECE

1. To avoid blade binding or loss of control, always secure the workpiece to a stable platform, ensuring that body exposure is minimized. Use clamps to secure the workpiece. Never perform any operation freehand.

SPECIFIC RULES FOR YOUR METAL BANDSAW

⚠ WARNING! Do not operate the power tool until you have read and understood the following instructions and the warning labels.

2. Ensure that work is correctly supported. Supports must be placed under the workpiece on both sides, close to the line of cut and near the edge of the workpiece.
3. For accuracy of cut, and to avoid blade binding, always use a rip fence or straight edge guide.
4. Never hand-hold a workpiece that is too small to be clamped, as it can be launched away and cause injury. Use proper support and guides to secure the small workpiece.

DURING CUTTING OPERATIONS

1. Always stand to one side when operating the saw. Never have any part of the body in line with the path of the saw. Never hold a workpiece in your hand or across your legs while cutting.
2. Ensure hands are away from the cutting area and blade. Keep one hand on the rear handle, and the other on the front grip. If both hands are holding the tool they cannot be cut by the blade.
3. Feed work into the blade against the direction of rotation of the blade only.
4. If you are interrupted when operating the saw, complete the process and switch the saw off before looking up.
5. Power tools must always be held by the insulated gripping surfaces when performing an operation, ensuring protection if the cutting tool makes contact with its own cord or hidden wiring. Contact with a 'live' wire will make exposed metal parts of the power tool 'live' and shock the operator if the insulated gripping surfaces are not used.
6. Do not use the Metal Bandsaw unless all guards are in place. Do not operate with any guard disabled, damaged, or removed. Moving guards must move freely and close instantly.
7. Turn on the Metal Bandsaw and let it reach full speed, then slowly slide the saw into the workpiece. This will help produce safer and cleaner cuts.
8. Never cut more than one piece at a time. Do not stack workpieces together. Do not attempt to cut material thicker than specified on page 2 of this manual. Adjust the cutting depth to the thickness of the workpiece.
9. If a cut does not extend to the edge of the workpiece, or if the blade binds in the cut, allow the blade to come to a complete stop and lift the saw out of the workpiece.
10. Turn off tool and wait for saw blade to stop before moving workpiece or changing settings. Do not slow or stop a blade with a piece of wood or by hand. Let the blade come to rest naturally. Do not attempt to free a jammed blade while the machine is still running and connected to power.
11. Always raise the blade to be covered by the blade guard after use.

ELECTRICAL INFORMATION

GROUNDING INSTRUCTIONS

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

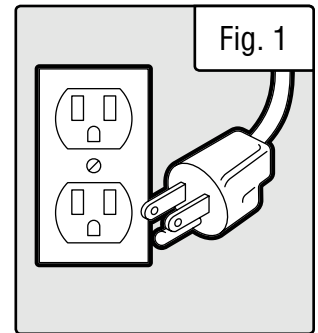
1. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

2. Improper connection of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment grounding conductor to a live terminal.

3. Check with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.

4. Use only three-wire extension cords that have three-pronged plugs and outlets that accept the tool's plug (INSERT CR). Repair or replace a damaged or worn cord immediately.

CAUTION! In all cases, make certain the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.



GUIDELINES AND RECOMMENDATIONS FOR EXTENSION CORDS

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
4.6A	18 gauge	16 gauge	14 gauge	14 gauge

1. Examine extension cord before use. Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

2. Do not abuse extension cord. Do not pull on cord to disconnect from receptacle; always disconnect by pulling on plug. Disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

3. Use a separate electrical circuit for your tool. This circuit must not be less than a 12-gauge wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

UNPACKING & TRANSPORTATION

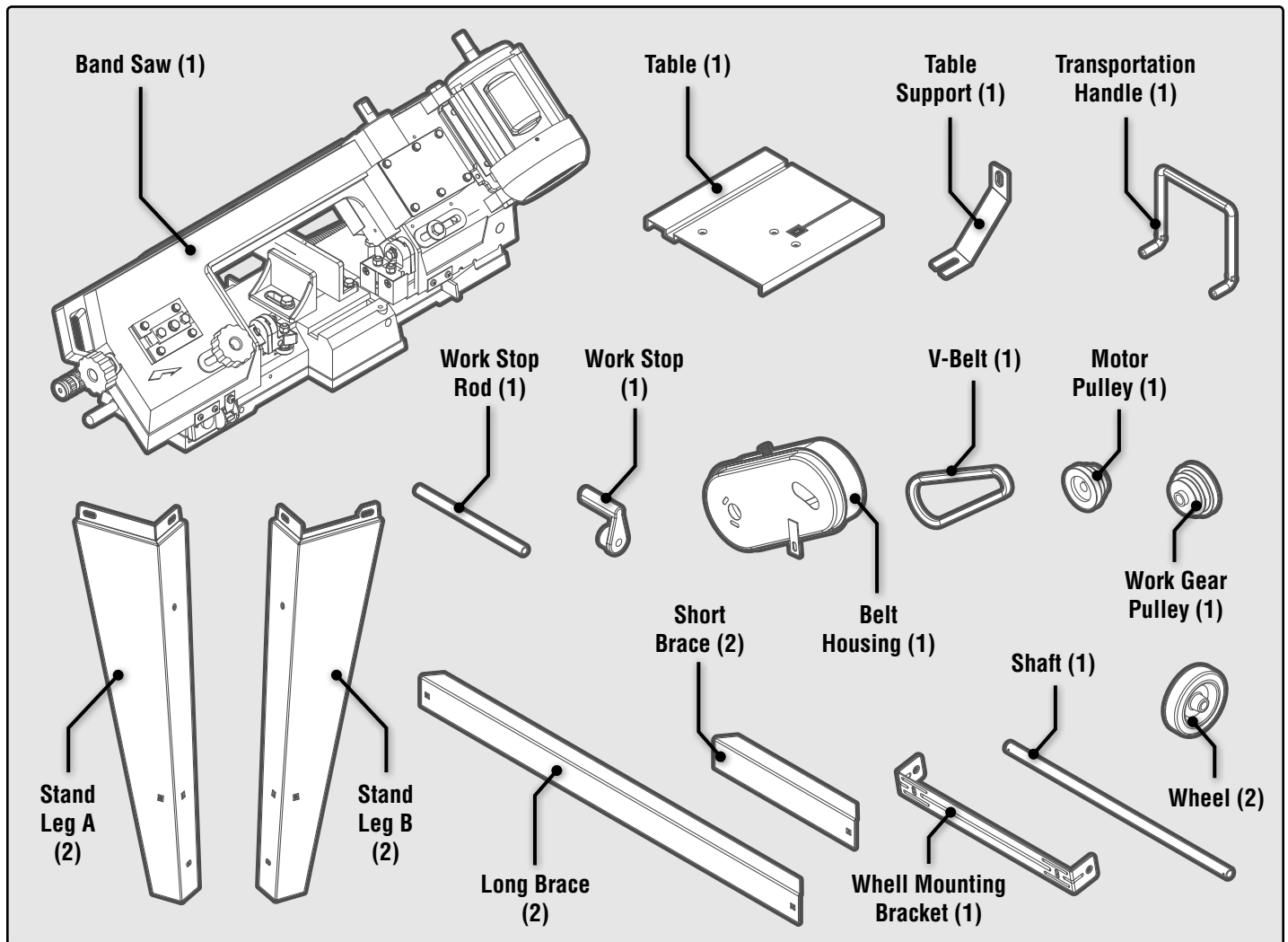
⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

UNPACKING

With the help of a friend or trustworthy foe, carefully remove the Metal Bandsaw from the packaging. Make sure to take out all contents and accessories. Do not discard the packaging until everything is removed. Check the packing list below to make sure you have all of the parts and accessories. If any part is missing or broken, please contact our customer service at **1-800-232-1195** (M-F 8-5 CST), or email **techsupport@wenproducts.com**.

PACKING LIST

(NOTE: The key is tied to the motor shaft. Hardware bag included but not shown below.)



ASSEMBLY/ADJUSTMENT TOOLS

The tools listed below are not included but are required for either assembly or adjustment:

- 14mm open end wrench (2)
- 10mm open end wrench (2)

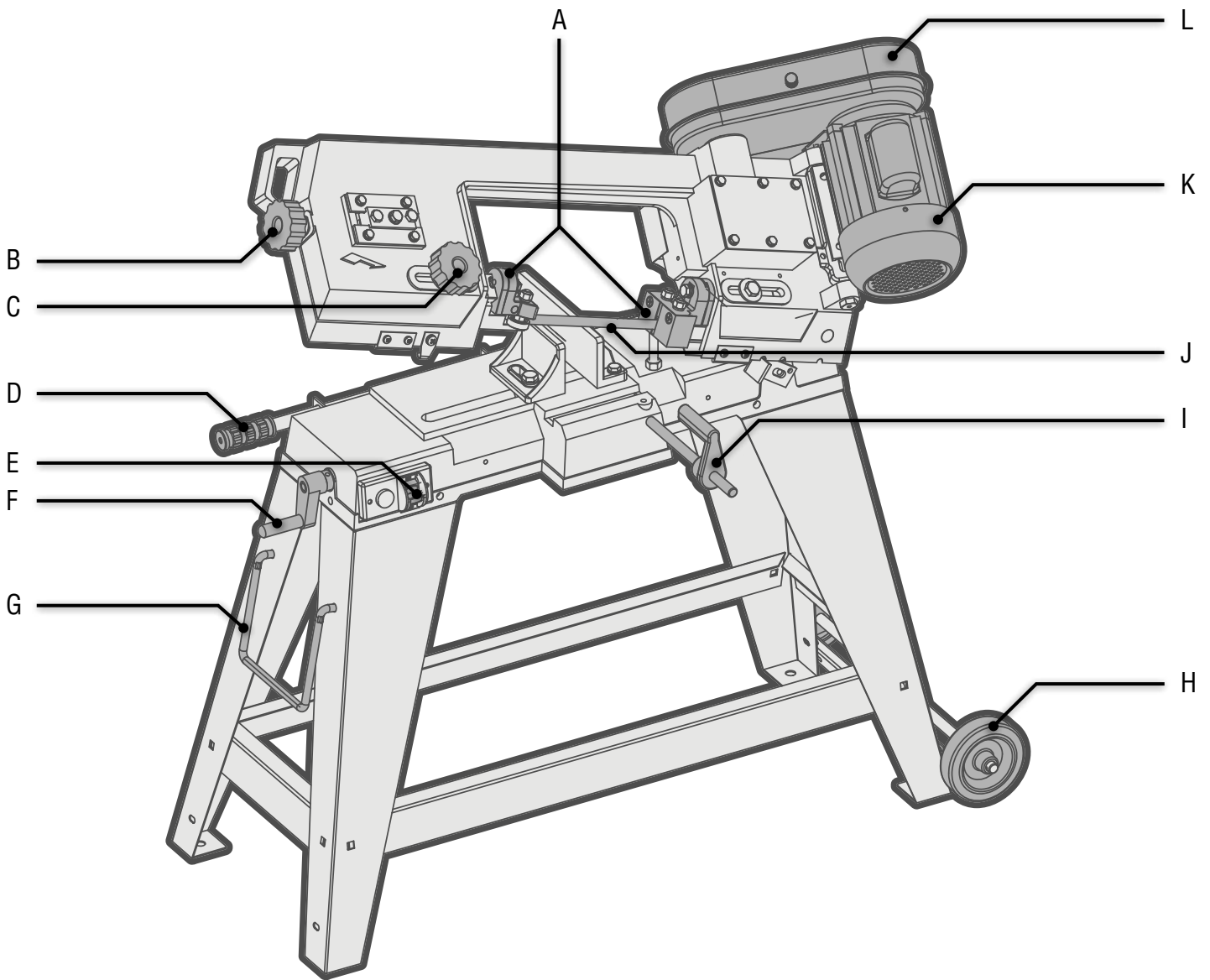
TRANSPORTING

When transporting the Metal Bandsaw, use the transportation handle and roll the assembled saw with the wheels. Never carry the saw by its guards or its accessories.

KNOW YOUR METAL BANDSAW

TOOL PURPOSE

Metal Bandsaws are used to cut flat and round pieces of metal. Refer to the following diagrams to become familiarized with all the parts and controls of your Metal Bandsaw. The components will be referred to later in the manual for assembly and operation instructions.



- | | | |
|------------------------------------|---------------------------|-----------------------|
| A. Blade Guides | E. Power Switch | I. Work Stop Assembly |
| B. Blade Tension & Adjustment Knob | F. Vise Adjustment Handle | J. Blade |
| C. Blade Guard Adjustment Knob | G. Transportation Handle | K. Motor |
| D. Feed Rate Adjustment Handle | H. Wheel | L. Belt Housing |

ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Read through and become familiarized with the following procedures of handling and adjusting your tool. Failure to follow the safety instructions may result in serious personal injury.

ASSEMBLING THE STAND

1. With the help of an assistant, lift the bandsaw onto a suitable support (Fig. 2).

2. Attach the legs to the bandsaw with the M8-1.25x25 hex bolts, 8mm flat washers, 8mm lock washers, and the M8-1.25 hex nuts. Hand tighten.

3. Attach the short braces (Fig. 2) to the legs with the M6-1.0x16 carriage bolts, 6mm flat washers, 6mm lock washers, and M6-1.0 hex nuts. Hand tighten.

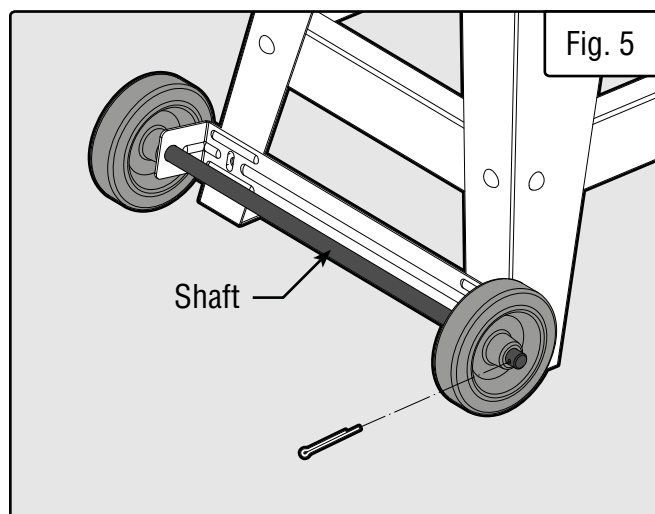
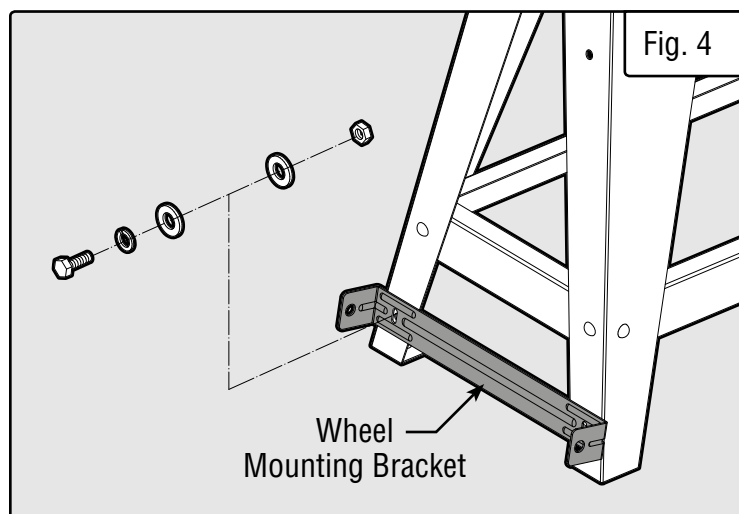
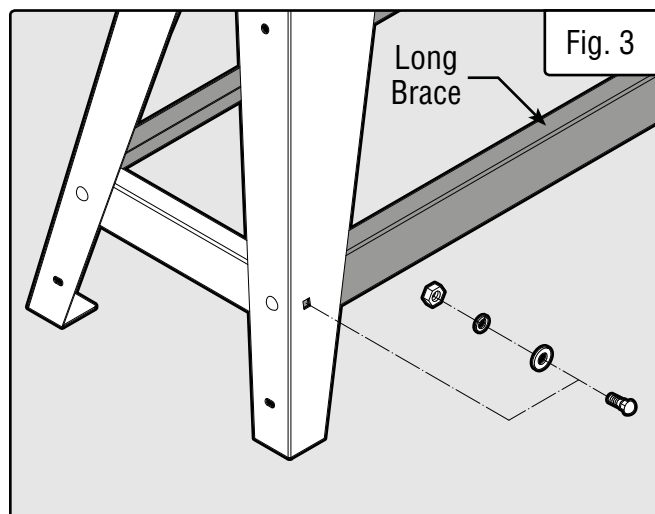
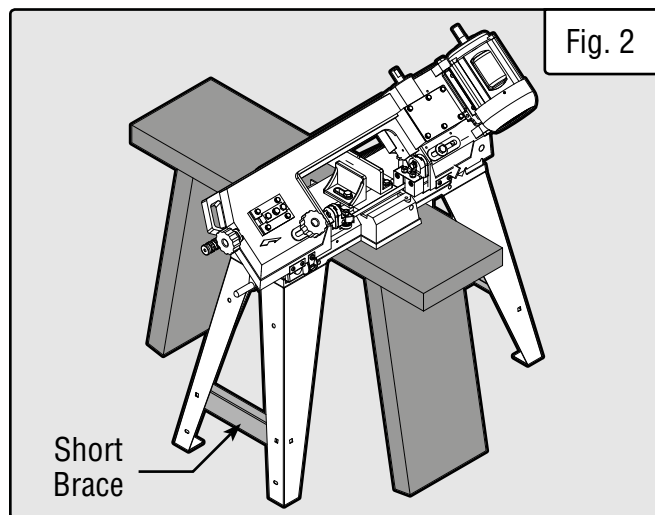
4. Lift the bandsaw off of the support and onto the floor. Attach the long braces (Fig. 3) to the legs with M6-1.0x16 carriage bolts, 6mm flat washers, 6mm lock washers, and M6-1.0 hex nuts. Hand tighten.

5. Use the M6-1x12 hex bolts, M6-1 hex nuts, 6mm lock washers, and the 6mm flat washers to install the wheel mounting brackets (Fig. 4) onto the legs. Hand tighten.

6. Slide the shaft through the holes in the wheel mounting bracket. Slide the wheels onto the shaft on the outside of the mounting bracket and secure them with the cotter pins. See Fig. 5.

7. Check to see if the bandsaw is relatively level, then the tighten all of the nuts using the proper wrenches.

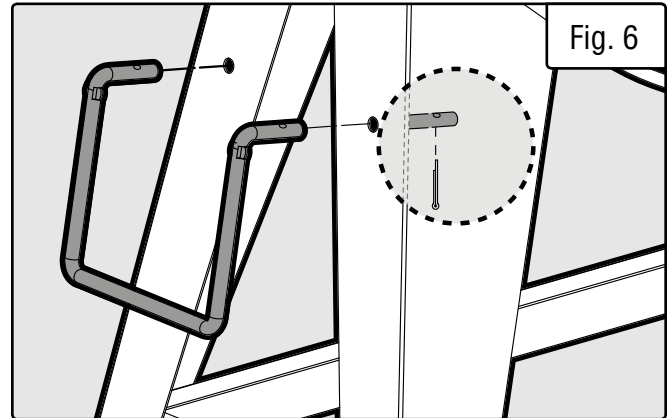
Instructions continue on the next page.



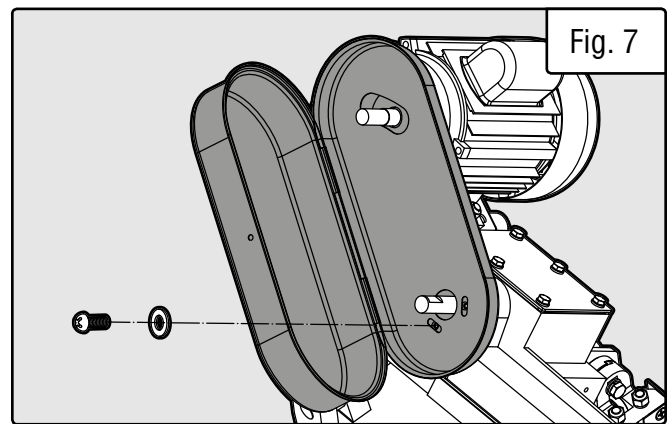
ASSEMBLY & ADJUSTMENTS

ASSEMBLING THE STAND (CONTINUED)

8. Locate the holes on the legs opposite the wheels. Insert the transportation handle into the holes and secure it with the cotter pins (Fig. 6).



9. Remove the screws and washers from where the belt housing needs to be mounted. Place the belt housing over the motor and gear shafts. Secure it with the removed screws and washers (Fig. 7 & Fig. 8).



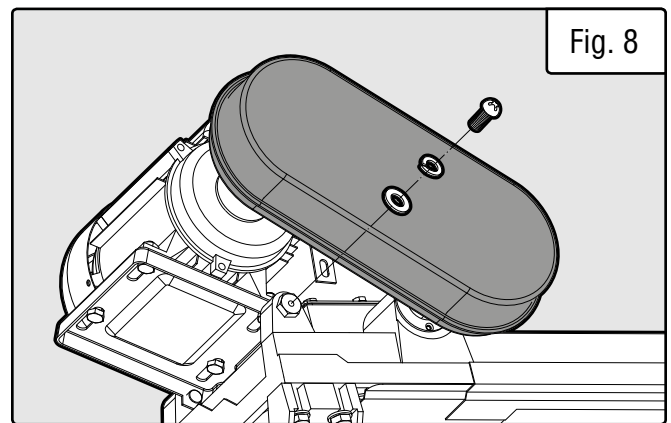
10. Open the pulley cover. Remove the key from the motor shaft and clean the motor shaft. Install the key and motor pulley to the motor shaft (Fig. 9).

11. Install the worm gear pulley on the shaft closest to the gear box, opposite of the motor (Fig. 9).

NOTE: Make sure to pay attention to the direction of the pulley's installation.

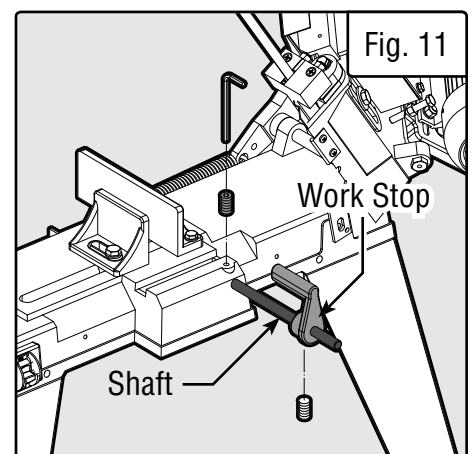
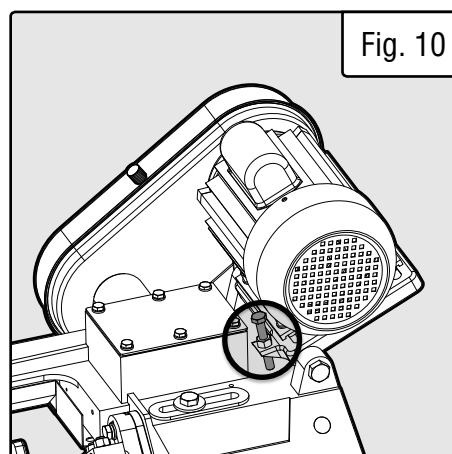
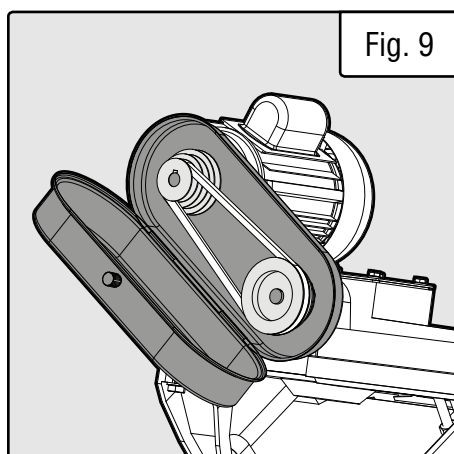
12. Use a straight edge to check the alignment of the pulley wheels and adjust them as needed (Fig. 9).

13. When the pulley wheels are aligned, tighten the set screws on both pulleys and install the V-belt. The belt tension can be adjusted with the motor lock bolt (Fig. 10).



14. Slide the work stop shaft into the side of the bandsaw. Lock it into place by tightening the upper set screw. See Fig. 11.

15. Slide the work stop onto the end of the work stop shaft and lock it into place with the lower set screw.



ASSEMBLY & ADJUSTMENTS

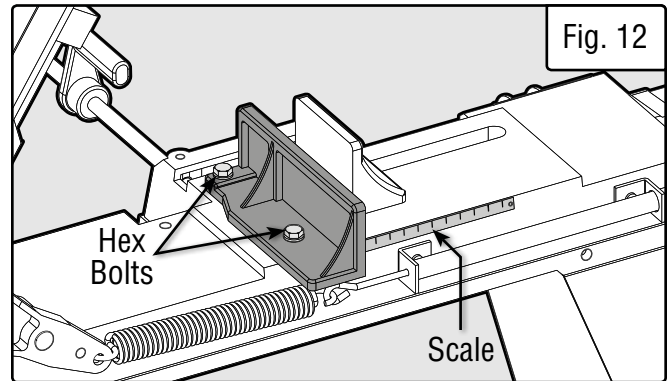
⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Read through and become familiarized with the following procedures of handling and adjusting your tool. Failure to follow the safety instructions may result in serious personal injury.

ADJUSTING THE VISE

1. Loosen the two hex bolts on the large jaw. Use the scale as a guide to set your angle. Retighten the hex bolts. See Fig. 12.

2. Loosen the hex bolt on the small jaw. Match the angle of the workpiece. Retighten the hex bolt. See Fig. 13.

3. Use the handle (Fig. 14) to open or close the jaws. Tighten the vise against the workpiece.



ADJUSTING THE BLADE GUIDE

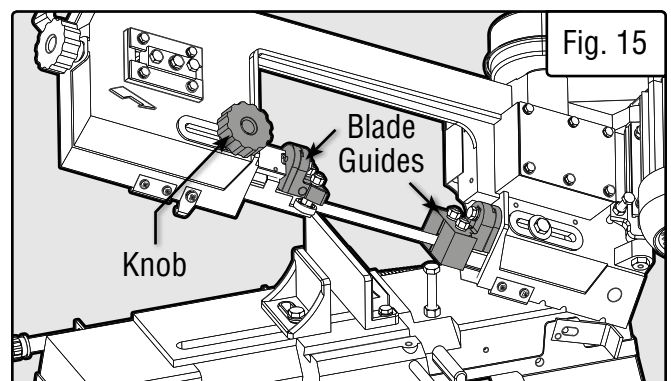
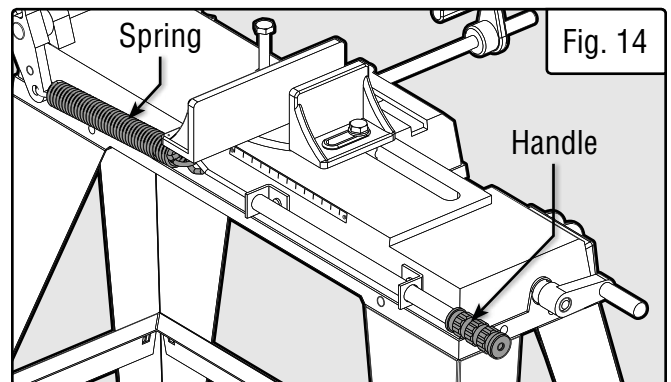
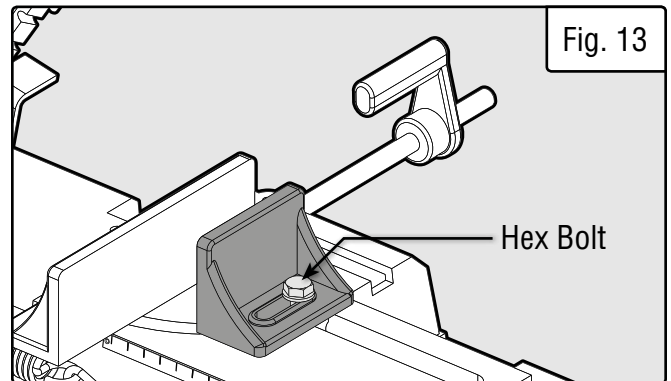
Loosen the knob and slide the blade guide as close to the workpiece as possible, then re-tighten the knob. See Fig. 15.

ADJUSTING THE FEED RATE

The feed rate has been set at the factory and should not need any adjustment. If adjustment is necessary follow the steps below.

1. The feed rate is controlled by the spring and handle. See Fig. 14

- Twist the handle **clockwise** to add tension to the spring and **decrease** the feed rate.
- Twist the handle **counterclockwise** to remove the tension from the spring and **increase** the feed rate.



ASSEMBLY & ADJUSTMENTS

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ADJUSTING THE BLADE SPEED

The bandsaw is capable of operating at 80, 120 or 180 FPM. The speed can easily be adjusted by changing the V-belt placement (Fig. 16).

To change the blade's speed:

1. Loosen the motor lock bolt (Fig. 17) to allow the motor to pivot freely.
2. Raise the motor to relieve the belt tension and position the belt into the desired pulley alignment.
3. Release the motor and let its weight tension the belt.
4. Tighten the motor lock bolt back against the frame of the band saw. Tighten the nut against the motor plate.

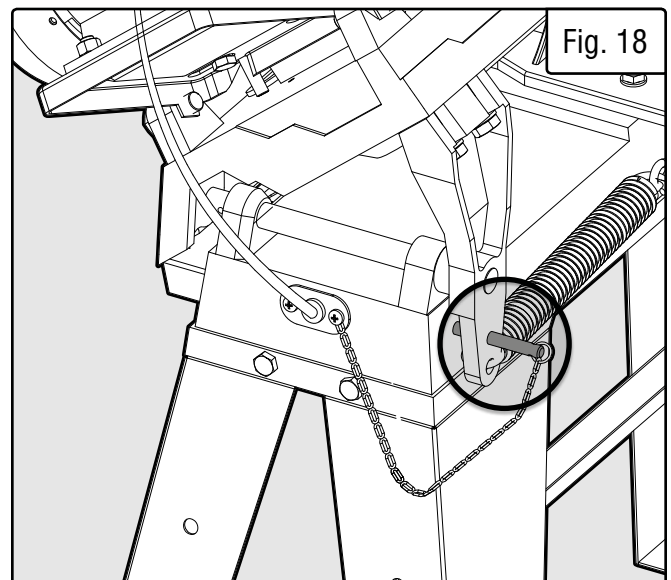
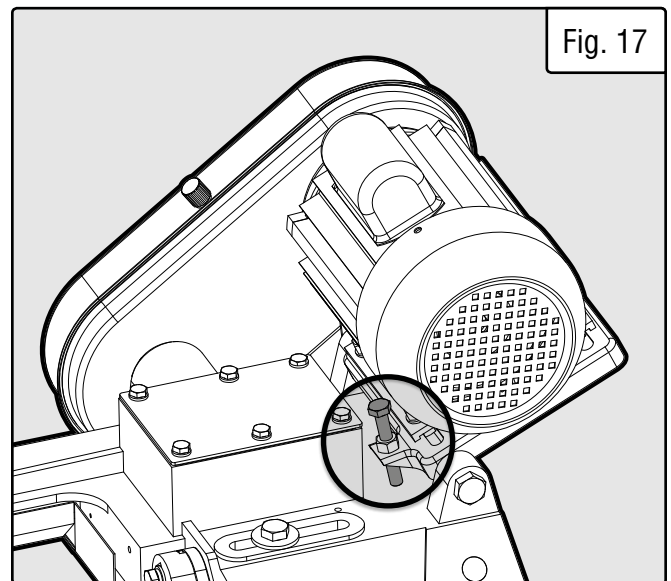
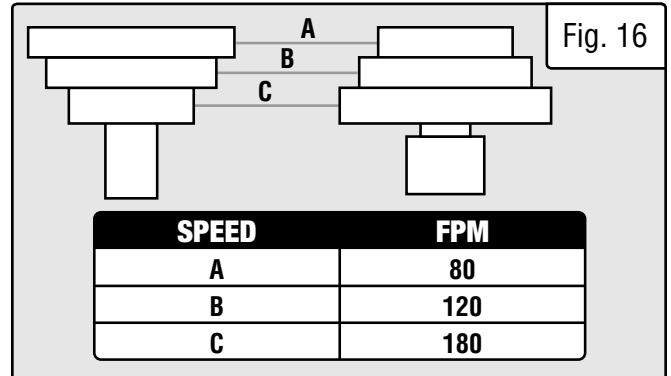
USING THE HEAD LOCK PIN

The head locking pin (Fig. 18) safely secures the head in the down position. To ensure the head does not unexpectedly spring up and tip the bandsaw over, this locking pin must be properly inserted when the band saw is not in use or before moving it.

To use the head locking pin:

1. Fully lower the head down.

Insert the locking pin through the holes in the head pivot arm and base, locking the head into the down position (Fig. 18).



OPERATION

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HORIZONTAL CUTTING (FIG. 19)

Use the work stop to quickly and accurately cut multiple pieces of stock to the same length.

1. Clamp the material firmly in the vise jaws to ensure a straight cut through the material.
2. Let the blade reach full speed before engaging the workpiece. Never start a cut with the blade in contact with the workpiece. **NOTE:** Chips should be curled and silvery. If the chips are thin and powder-like, increase your feed rate. If the chips are burned, reduce the blade speed.
3. Wait until the blade has completely stopped before removing the workpiece from the vise. Avoid touching the cut ends, as they could be very hot.

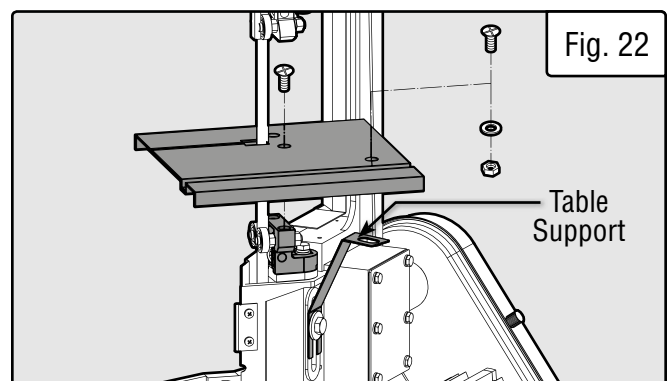
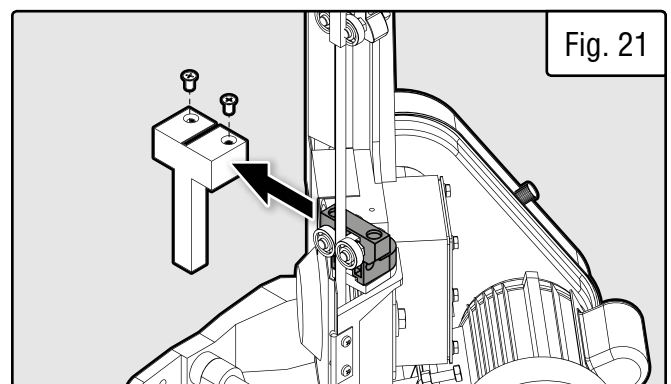
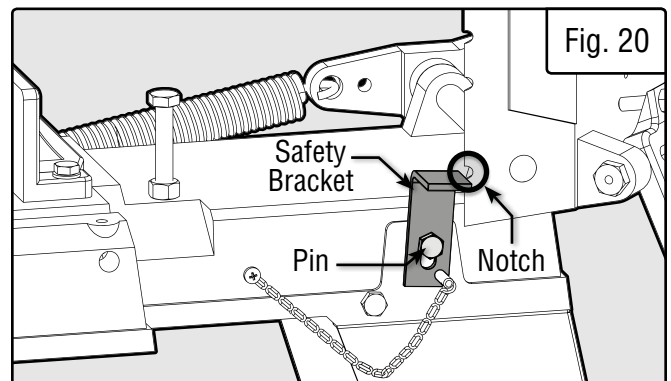
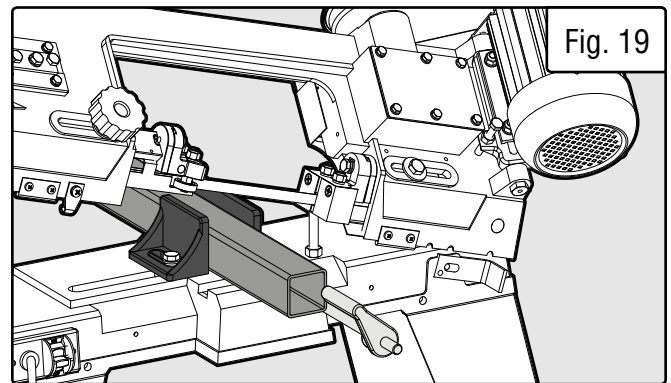
VERTICAL CUTTING

Workpieces that cannot be properly supported or stabilized without a vise should not be cut in the vertical position. Make sure that the vertical table assembly is securely fastened to the band saw frame so it will adequately support the workpiece.

Always keep your fingers away from the blade. Adjust the blade guides as close as possible to the workpiece to minimize side-to-side blade movement.

To assemble the bandsaw for vertical cutting:

1. Disconnect the bandsaw from the power supply.
2. Install the safety bracket and lock it into place with the pin to keep the saw from falling. The bracket should catch on the notch. See Fig. 20.
3. Remove the two flat head screws and the blade guide cover. See Fig. 21.
4. Install the table and replace the two screws that you removed in step 3. See Fig. 22.
5. Install the table support (Fig. 22) with the pre-installed hex bolt, the flat head screw, and the hex nut.



MAINTENANCE

⚠ WARNING! To avoid accidents, turn OFF and unplug the tool from the electrical outlet before cleaning, adjusting, or performing any maintenance work.

⚠ WARNING! Any attempt to repair or replace electrical parts on this tool may be hazardous. Servicing of the tool must be performed by a qualified technician. When servicing, use only identical WEN replacement parts. Use of other parts may be hazardous or induce product failure.

ROUTINE INSPECTION

Before each use, inspect the general condition of the tool. If any of these following conditions exist, do not use until parts are replaced or the saw is properly repaired.

Check for:

- Loose hardware,
- Damaged or dull blades,
- Misalignment or binding of moving parts,
- Damaged cord/electrical wiring,
- Cracked or broken parts, and
- Any other condition that may affect its safe operation.

CLEANING & STORAGE

1. Keep the ventilation openings free from dust and debris to prevent the motor from overheating.

2. Use a brush and a shop vacuum to remove chips and other debris from the machine.

3. Wipe the tool surfaces clean with a clean cloth. Make sure water does not get into the tool.

CAUTION! Most plastics are susceptible to damage from various types of commercial solvents. Do not use any solvents or cleaning products that could damage the plastic parts. Some of these include but are not limited to: gasoline, carbon tetrachloride, chlorinated cleaning solvents, and household detergents that contain ammonia.

4. Store the tool in a clean and dry place away from the reach of children. Store in temperatures between 41° to 86°F. If you do not intend to use the sawing machine for a long time, remove the blade entirely (recommended) or relieve tension on the blade. This will prevent warping and prolong your blade's life.

5. Cover the bandsaw in order to protect it from dust and moisture. It is preferable to store it in its original packaging with the instruction manual and all accessories.

LUBRICATION

The bearings of your bandsaw are permanently sealed and require no extra lubrication.

PRODUCT DISPOSAL

Used power tools should not be disposed of together with household waste. This product contains electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal and to minimize its environmental impact.



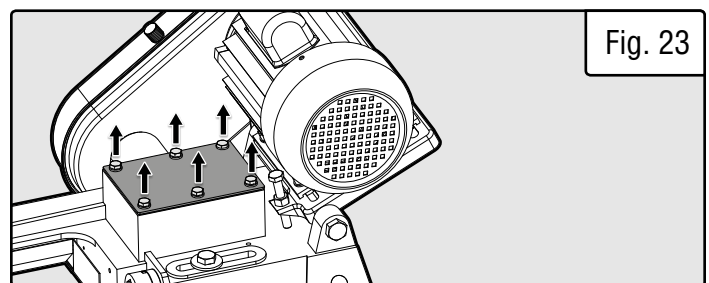
Please recycle the packaging and electronic components where facilities exist.

REPLACING THE OIL

If undergoing normal usage, replace the oil approximately once every year. The oil quantity is 3 fl oz. (90 mL). For professional or industrial use, replace more often.

1. Open the gear box by removing the 6 screws (Fig. 23).

2. Drain the oil and replace it. The oil type used with your bandsaw is L-CKE gear oil, ISO VG 220 (SAE 90, AGMA 5).



MAINTENANCE

CHANGING THE SAW BLADE

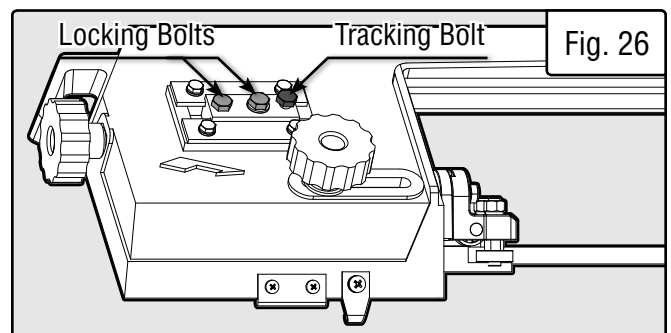
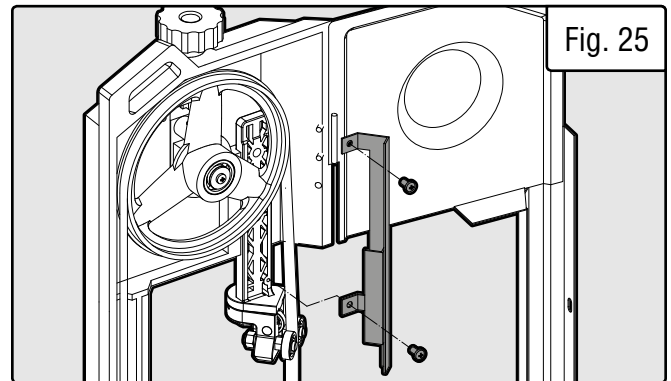
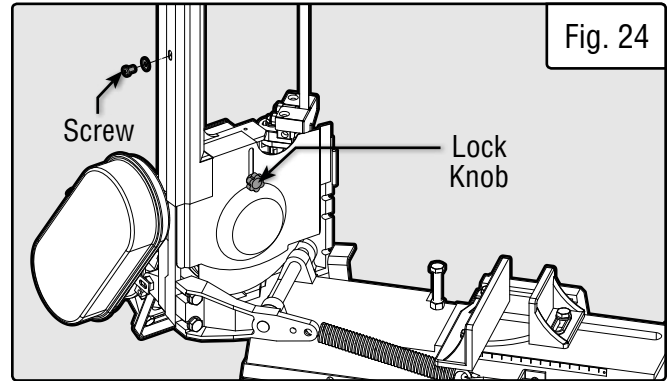
1. Use the head locking pin to lock the saw in the vertical position. Remove the blade cover screw and loosen the blade cover lock knob. See Fig. 24. Open the blade cover.
2. Move the motor-side blade guide as far as it will go toward the motor.
3. Remove the two screws holding the red blade guard onto the blade guide, then remove the blade guide. See Fig. 25.
4. Loosen the tension knob and slip the blade off the wheels.
5. Install the new blade through both blade guide bearings and around the bottom wheel in the same orientation as the old blade.
6. Hold the blade around the bottom wheel with one hand and slip it around the top wheel with the other hand, keeping the blade between the blade guide bearings.
7. Tighten the tension knob so the blade will not slip on the wheels upon startup. Re-install the red safety guard.

ADJUSTING THE BLADE TRACKING

Blade tracking has been set at the factory and should not require adjustment on your existing blade. If a tracking problem occurs, before making any tracking adjustments, try replacing with a new blade (see “Changing the Saw Blade” section above) and see if the tracking issue is resolved. Warped or worn blades will not track properly.

If the problem persists, adjust the machine as follows:

1. Use the head locking pin to lock the saw in the vertical position. Remove the blade cover screw and loosen the blade cover lock knob. See Fig. 24. Open the blade cover.
2. Confirm that the blade tension is set properly. Using a gloved finger, lightly press on the side of the saw blade. The blade should flex about 1/8 inch if properly tensioned. Adjust tension if necessary.
3. Run the saw and observe the blade. The blade should run next to but not tightly against the wheel flange.
4. To adjust the blade tracking, loosen the two shaft locking bolts. Slowly and carefully turn the shaft tracking bolt with a wrench, while observing the blade tracking on the wheel. See Fig. 26.
 - Turn the tracking bolt **clockwise** to track the blade **closer** to the wheel flange.
 - Turn the tracking bolt **counterclockwise** to track the blade **away** from the wheel flange.



⚠ WARNING! Blade tracking adjustment requires running the saw with the back cover open. This adjustment must only be completed by a qualified person. Failure to comply may cause serious injury.

⚠ WARNING! If the blade tension or tracking is improper, the blade can spring off, causing serious injury. Stand behind the saw and cover at all times when adjusting blade tracking to minimize the risk of injury. Make sure to wear safety glasses, work gloves, long work pants and a long sleeve shirt.

5. Once the blade tracking is complete, tighten the two shaft locking bolts. See Fig. 26.
6. Close the blade cover door. Tighten drive wheel cover screws. See Fig. 26.

BLADE ALIGNMENT

Check Blade tension:

1. Remove the black back cover and make sure the blade is properly aligned on both wheels.
2. Adjust the blade tension until the blade sits properly centered (or does not move) on both wheels during operation

Check Blade Guard:

Without the left blade guard, there is a twist on the blade due to the way it sits on the two wheels and how it is assembled. This is unavoidable (Fig. 27).

Blade Guard:

Arrows show the direction the bearings can be adjusted.

Using the Blade Guard to Straighten the Blade:

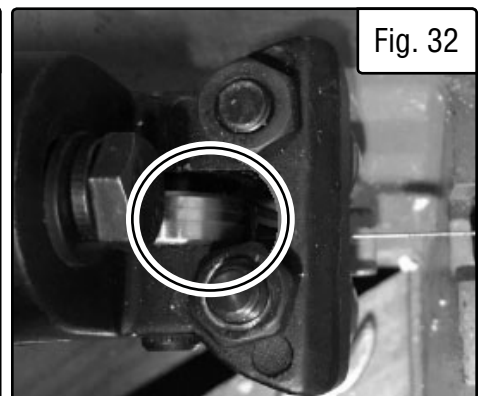
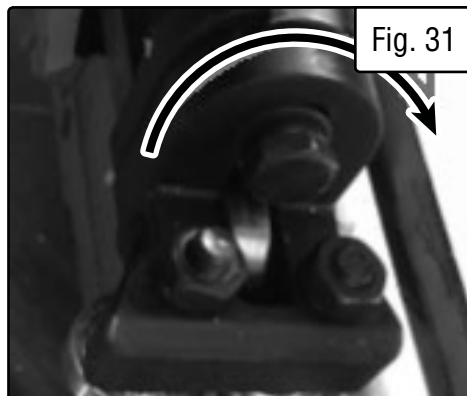
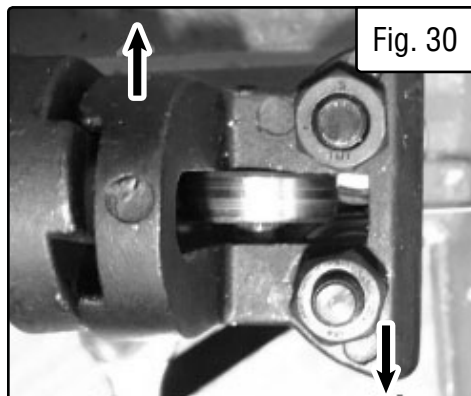
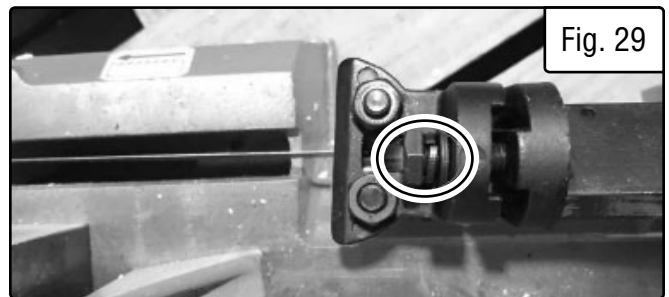
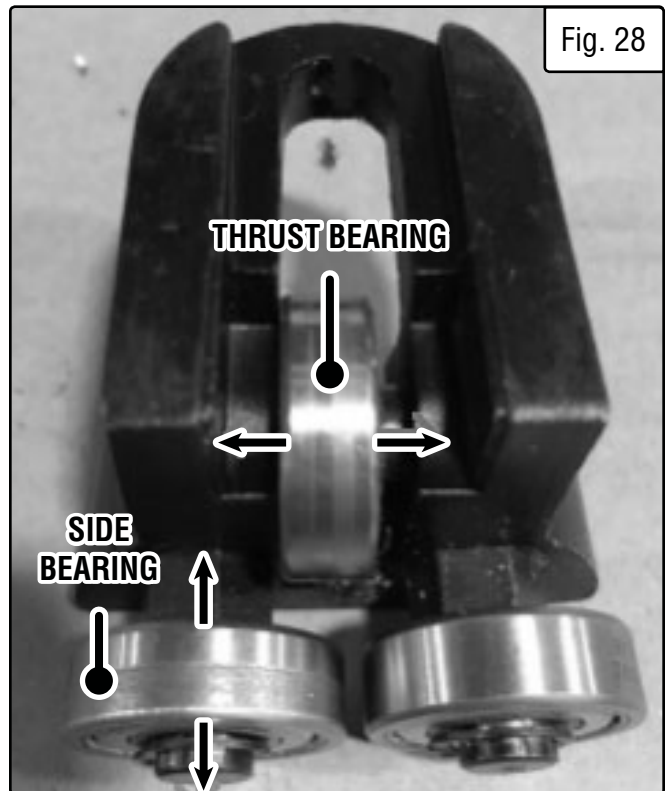
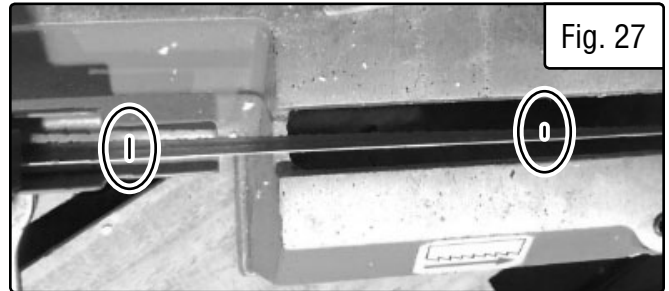
1. Loosen the nut on the left blade guard (Fig. 29).
2. Adjust the blade guard (Fig. 30).

The rear bearing will be in contact with the blade (Fig. 31).

NOTE: It is important to twist/adjust the blade guard in the direction as shown in figure 30. Because of how the blade is positioned on the wheels, this will help prevent the blade from sliding off of the wheel during operation.

3. Adjust the thrust bearing so that it is in contact with the blade (Fig. 32).

NOTE: If the blade still continues to slip off the wheels, check if the right blade guard is causing any unnecessary twist on the blade.



TROUBLESHOOTING GUIDE

⚠ WARNING! Stop using the tool immediately if any of the following problems occur. Repairs and replacements should only be performed by an authorized technician. For any questions, please contact our customer service at (800) 232-1195, M-F 8-5 CST or email us at techsupport@wenproducts.com.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor does not start.	1. Unit is not plugged in.	1. Plug unit in.
	2. Defective power switch.	2. Contact customer service at 1-800-232-1195 for assistance.
	3. Defective power cord.	3. Contact customer service at 1-800-232-1195 for assistance.
	4. Defective start capacitor.	4. Contact customer service at 1-800-232-1195 for assistance.
	5. Defective motor.	5. Contact customer service at 1-800-232-1195 for assistance.
Machine stalls or is underpowered.	1. Wrong blade for workpiece material.	1. Use a different blade more suited to the material type.
	2. V-belt is worn or loose.	2. Inspect belt or replace as need be.
	3. Pulley is loose.	3. Re-align pulleys; tighten set screws.
Machine vibrates or operates noisily.	1. V-belt is hitting belt cover.	1. Verify that belt cover was installed properly.
	2. V-belt is worn or loose.	2. Inspect belt or replace as need be.
	3. Pulley is loose.	3. Re-align pulleys; tighten set screws.
	4. Worn bearing(s).	4. Contact customer service at 1-800-232-1195 for assistance.
Teeth are ripping from the blade.	1. Feed rate too high, blade speed too slow, or blade too coarse for workpiece.	1. Decrease feed rate, adjust blade speed, or replace blade.
	2. Workpiece not clamped securely.	2. Re-clamp workpiece. Use a jig if need be.
	3. Blade teeth gullets loading up with chips.	3. Use a coarser-tooth blade.

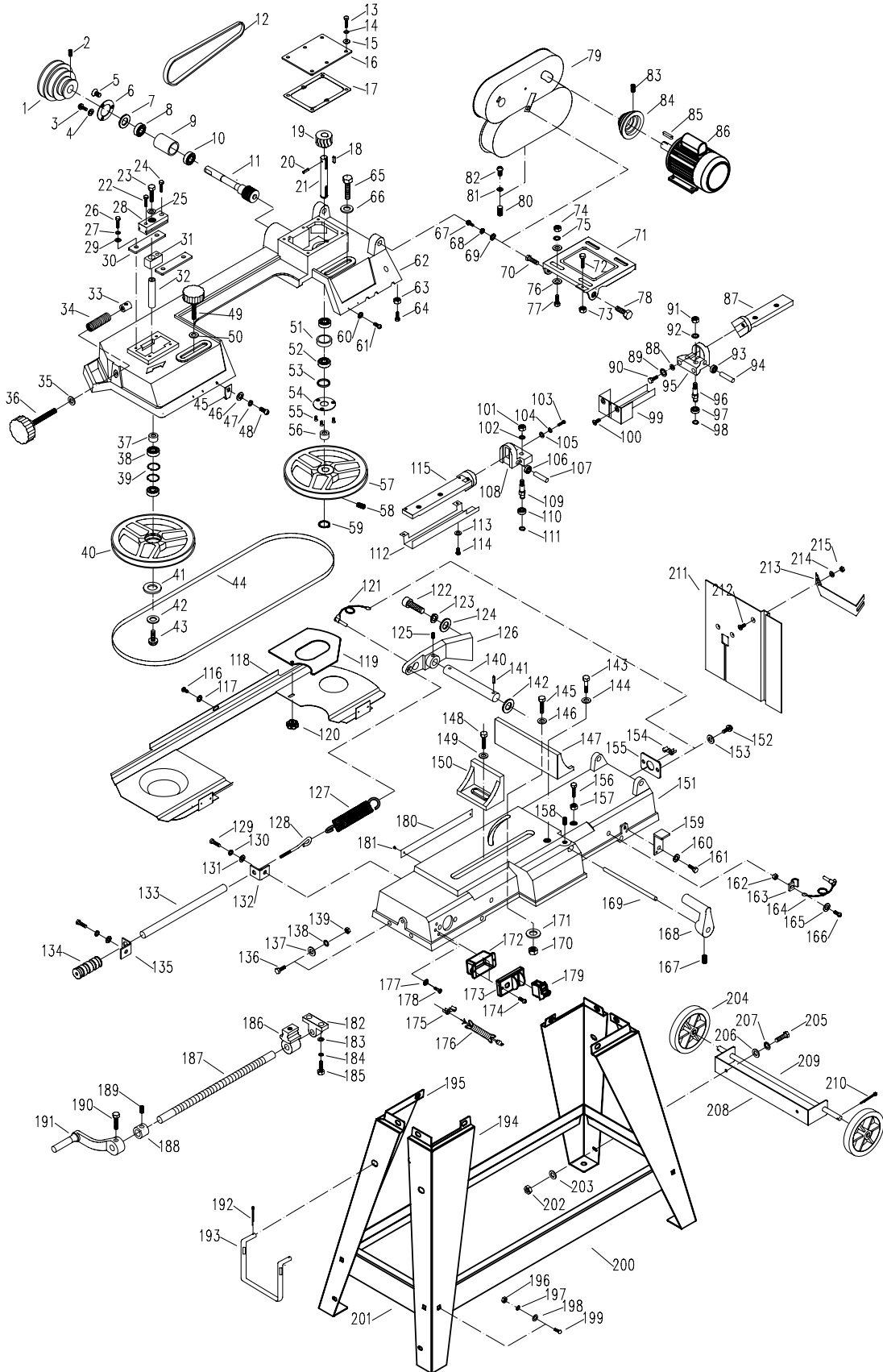
Troubleshooting guide continues on the next page.

TROUBLESHOOTING GUIDE

⚠ WARNING! Stop using the tool immediately if any of the following problems occur. Repairs and replacements should only be performed by an authorized technician. For any questions, please contact our customer service at (800) 232-1195, M-F 8-5 CST or email us at techsupport@wenproducts.com.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Inaccurate cut squaring.	1. Excessive cutting pressure (incorrect choice of feed rate).	1. Decrease feed rate.
	2. Incorrect choice of blade tooth count.	2. Use a different blade more suited to the material type.
	3. Incorrect adjustment of sliding blade guides.	3. Check blade guide adjustment - they should be as close to the workpiece as possible.
	4. Incorrect choice of cutting speeds.	4. Adjust cutting speed.
	5. Workpiece not securely clamped in vise, or improperly positioned in vise.	5. Re-clamp or re-position the workpiece in the vise.
	6. Poor blade tension.	6. Check blade tension.
	7. Warped blade.	7. Contact customer service at 1-800-232-1195 for assistance.
Blade tends to protrude from guide bearings.	1. Excessive blade tension.	1. Check blade tension.
	2. Incorrect tracking adjustment.	2. Adjust blade tracking.
	3. Blade is slipping on guide bearings (cutting oil has been used).	3. We do not recommend using lubricant or coolant with this bandsaw. Contact customer service at 1-800-232-1195 for assistance.

EXPLODED VIEW & PARTS LIST



NOTE: Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

EXPLODED VIEW & PARTS LIST

No.	Part No.	Description	Qty.
1	3970-001	Worm Gear Pulley	1
2	3970-002	Set Screw, M8x8	1
3	3970-003	Pan Head Screw, M4x8	1
4	3970-004	Flat Washer, 4mm	1
5	3970-005	Flat Head Screw, M4x8	2
6	3970-006	Bearing Cover	1
7	3970-007	Oil Seal	1
8	3970-008	Ball Bearing, 6202ZZ	2
9	3970-009	Bearing Bushing	1
10	3970-008	Ball Bearing, 6202ZZ	2
11	3970-011	Worm Gear	1
12	3970-012	V Belt	1
13	3970-013	Hex Head Bolt, M6x16	6
14	3970-014	Lock Washer, 6mm	6
15	3970-015	Flat Washer, 6mm	6
16	3970-016	Gear Box Cover	1
17	3970-017	Gear Box Gasket	1
18	3970-018	Key, 5x5x28mm	2
19	3970-019B	Worm Assembly	1
20	3970-020	Spring Pin, 5x26mm	1
21	3970-021	Worm Gear	1
22	3970-022	Hex Head Bolt, M8x30	2
23	3970-023	Hex Head Bolt, M8x16	1
24	3970-022	Hex Head Bolt, M8x30	2
25	3970-025	Flat Washer, 8mm	1
26	3970-026	Hex Head Bolt, M6x12	4
27	3970-027	Lock Washer, 6mm	4
28	3970-028	Sliding Block	1
29	3970-029	Flat Washer, 6mm	4
30	3970-030	Guide Plate	2
31	3970-031	Shaft Block	1
32	3970-032	Shaft	1
33	3970-033	Blade Tension Nut	1
34	3970-034	Spring	1
35	3970-035	Flat Washer, 10mm	1
36	3970-036	Blade Tension Knob	1
37	3970-037	Bushing	1

No.	Part No.	Description	Qty.
38	3970-038	Ball Bearing, 6202ZZ	2
39	3970-039	Retaining Ring, 35mm	2
40	3970-040	Rear Blade Wheel	1
41	3970-041	Flat Washer	1
42	3970-042	Flat Washer, 5mm	1
43	3970-043	Socket Head Screw, M5x16	1
44	3970-044	Blade	1
45	3970-045	Cut Off Switch Bracket	1
46	3970-046	Flat Washer, 6mm	1
47	3970-047	Lock Washer, 6mm	1
48	3970-048	Pan Head Screw, M6x12	1
49	3970-049	Rear Guide Knob	1
50	3970-050	Flat Washer, 10mm	1
51	3970-051	Bushing	1
52	3970-052	Ball Bearing, 6202ZZ	2
53	3970-053	Oil Seal	1
54	3970-054	Bearing Cover	1
55	3970-055	Flat Head Screw, M4x8	3
56	3970-056	Bushing	1
57	3970-057	Front Blade Wheel	1
58	3970-058	Set Screw, M8x8	1
59	3970-059	Retaining Ring, 15mm	1
60	3970-060	Flat Washer, 4mm	4
61	3970-061	Pan Head Screw, M4x6	4
62	3970-062	Frame	1
63	3970-063	Hex Head Bolt, M6x25	1
64	3970-064	Nut, M6	1
65	3970-065	Hex Head Bolt, M10x30	1
66	3970-066	Flat Washer, 10mm	1
67	3970-067	Pan Head Screw, M6x10	1
68	3970-068	Lock Washer, 6mm	1
69	3970-069	Flat Washer, 6mm	1
70	3970-070	Hex Head Bolt	1
71	3970-071	Motor Support Plate	1
72	3970-072	Hex Head Bolt, M8x55	1
73	3970-073	Hex Nut, M8	1
74	3970-074	Hex Nut, M8	4

EXPLODED VIEW & PARTS LIST

No.	Part No.	Description	Qty.
75	3970-075	Lock Washer, 8mm	4
76	3970-076	Flat Washer, 8mm	4
77	3970-077	Hex Head Bolt, M8x20	4
78	3970-078	Hex Head Bolt, M12x35	1
79	3970-079	Belt Cover	1
80	3970-080	Knob	1
81	3970-081	Flat Washer, 4mm	1
82	3970-082	Pan Head Screw, M4x8	1
83	3970-083	Set Screw, M8x8	1
84	3970-084	Motor Pulley	1
85	3970-018	Key, 5x5x28mm	1
86	3970-086	Motor	1
87	3970-087	Front Guide Base	1
88	3970-088	Flat Washer, 8mm	1
89	3970-089	Lock Washer, 8mm	1
90	3970-090	Hex Head Bolt, M8x30	1
91	3970-091	Nut, M8	2
92	3970-092	Lock Washer, 8mm	2
93	3970-093	Ball Bearing, 629ZZ	1
94	3970-094	Shaft	1
95	3970-095	Front Blade Guide	1
96	3970-096	Bearing Mount	2
97	3970-093	Ball Bearing, 629ZZ	2
98	3970-098	Retaining Ring, 9mm	2
99	3970-099	Front Blade Guard	1
100	3970-100	Flat Head Screw, M6x16	2
101	3970-101	Nut, M8	2
102	3970-102	Lock Washer, M8	2
103	3970-103	Hex Head Bolt, M8x30	1
104	3970-104	Lock Washer, 8mm	1
105	3970-105	Flat Washer, 8mm	1
106	3970-093	Ball Bearing, 629ZZ	1
107	3970-094	Shaft	1
108	3970-108	Rear Blade Guide	1
109	3970-096	Bearing Mount	2
110	3970-093	Ball Bearing, 629ZZ	2
111	3970-098	Retaining Ring, 9mm	2

No.	Part No.	Description	Qty.
112	3970-112	Rear Blade Guard	1
113	3970-113	Flat Washer, 4mm	2
114	3970-114	Pan Head Screw, M4x6	2
115	3970-115	Rear Guide Base	1
116	3970-116	Pan Head Screw, M6x10	1
117	3970-117	Flat Washer, 6mm	1
118	3970-118	Frame Guard	1
119	3970-119	Extension Guard	1
120	3970-120	Knob	1
121	3970-121	Pin With Chain	1
122	3970-122	Socket Head Screw, M10x35	2
123	3970-123	Lock Washer, 10mm	2
124	3970-124	Flat Washer, 10mm	2
125	3970-125	Set Screw, M8x8	1
126	3970-126	Pivot Block	1
127	3970-127	Spring	1
128	3970-128	Spring Adjusting Screw	1
129	3970-129	Hex Head Bolt, M6x12	2
130	3970-130	Lock Washer, 6mm	2
131	3970-131	Flat Washer, 6mm	2
132	3970-132	Screw Support Plate	1
133	3970-133	Adjusting Rod	1
134	3970-134	Knob	1
135	3970-135	Adjusting Rod Support	1
136	3970-136	Hex Head Bolt, M8x20	8
137	3970-137	Flat Washer, 8mm	8
138	3970-138	Lock Washer, 8mm	8
139	3970-139	Nut, M8	8
140	3970-140	Pivoting Rod	1
141	3970-141	Spring Pin, 4x25mm	1
142	3970-142	Flat Washer, 6mm	1
143	3970-143	Hex Head Bolt	1
144	3970-144	Flat Washer, 8mm	1
145	3970-145	Hex Head Bolt, M8x40	1
143	3970-143	Hex Head Bolt	1
144	3970-144	Flat Washer	1
145	3970-145	Hex Head Bolt	1

EXPLODED VIEW & PARTS LIST

No.	Part No.	Description	Qty.
146	3970-144	Flat Washer, 8mm	1
147	3970-147	Vise Jaw	1
148	3970-148	Hex Head Bolt, M10x25	1
149	3970-149	Flat Washer, 10mm	1
150	3970-150	Movable	1
151	3970-151	Base	1
152	3970-152	Pan Head Screw, M5x8	2
153	3970-153	Flat Washer, 5mm	2
154	3970-154	Strain Relief	1
155	3970-155	Strain Relief Mounting Plate	1
156	3970-156	Hex Head Bolt, M12x70	1
157	3970-157	Nut, M12	1
158	3970-158	Set Screw, M8x12	1
159	3970-159	Safety Bracket	1
160	3970-160	Flat Washer, 8mm	1
161	3970-161	Hex Head Bolt, M8x16	1
162	3970-162	Nut, M5	2
163	3970-163	Cord Clamp	2
164	3970-164	Pin With Chain	1
165	3970-165	Flat Washer, 5mm	2
166	3970-166	Pan Head Screw, M5x16	2
167	3970-167	Set Screw, M8x8	1
168	3970-168	Work Stop	1
169	3970-169	Work Stop Rod	1
170	3970-170	Nut, M8	1
171	3970-171	Flat Washer, 8mm	1
172	3970-172	Switch Box	1
173	3970-173	Switch Mounting Plate	1
174	3970-174	Thread Forming Screw	2
175	3970-175	Strain Relief	2
176	3970-176	Power Cord	1
177	3970-177	Toothed Washer, 5mm	2
178	3970-178	Pan Head Screw, M5	2
179	3970-179	Switch	1
180	3970-180	Angle Scale	1
181	3970-181	Rivet	2
182	3970-182	Screw Support Block	1

No.	Part No.	Description	Qty.
183	3970-183	Flat Washer, 6mm	2
184	3970-184	Lock Washer, 6mm	2
185	3970-185	Hex Head Bolt, M6x18	2
186	3970-186	Vise Nut	1
187	3970-187	Lead Screw	1
188	3970-188	Bushing	1
189	3970-189	Set Screw, M6x6	1
190	3970-190	Hex Head Bolt, M6x12	1
191	3970-191	Crank Handle	1
192	3970-192	Cotter Pin	2
193	3970-193	Transport Handle	1
194	3970-194	Leg A	2
195	3970-195	Leg B	2
196	3970-196	Nut, M8	8
197	3970-197	Lock Washer, 8mm	8
198	3970-198	Flat Washer, 8mm	8
199	3970-199	Carriage Bolt, M8x16	8
200	3970-200	Long Brace	2
201	3970-201	Short Brace	2
202	3970-202	Hex Nut, M6	2
203	3970-203	Flat Washer, 6mm	2
204	3970-204	Wheel	2
205	3970-205	Hex Head Bolt, M6x12	2
206	3970-206	Flat Washer, 6mm	2
207	3970-207	Lock Washer, 6mm	2
208	3970-208	Wheel Bracket	1
209	3970-209	Axle	1
210	3970-210	Cotter Pin	2
211	3970-211	Table	1
212	3970-212	Flat Head Screw, M6x16	1
213	3970-213	Table Support	1
214	3970-214	Flat Washer, 6mm	1
215	3970-215	Nut, M6	1

NOTE: Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

WARRANTY

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

LIMITED WARRANTY OF WEN PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC (“Seller”) warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship during personal use for a period of two (2) years from date of purchase or 500 hours of use; whichever comes first. Ninety days for all WEN products if the tool is used for professional or commercial use. Purchaser has 30 days from the date of purchase to report missing or damaged parts.

SELLER’S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the replacement of parts, without charge, which are defective in material or workmanship and which have not been subjected to misuse, alteration, careless handling, misrepair, abuse, neglect, normal wear and tear, improper maintenance, or other conditions adversely affecting the Product or the component of the Product, whether by accident or intentionally, by persons other than Seller. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of Purchase must be a direct vendor of Great Lakes Technologies, LLC. Purchasing through third party vendors, including but not limited to garage sales, pawn shops, resale shops, or any other secondhand merchant, voids the warranty included with this product. Contact tech-support@wenproducts.com or 1-800-232-1195 with the following information to make arrangements: your shipping address, phone number, serial number, required part numbers, and proof of purchase. Damaged or defective parts and products may need to be sent to WEN before the replacements can be shipped out.

Upon the confirmation of a WEN representative, your product may qualify for repairs and service work. When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge for addresses within the contiguous United States.

THIS LIMITED WARRANTY DOES NOT APPLY TO ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME, INCLUDING BELTS, BRUSHES, BLADES, BATTERIES, ETC. ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO ITEMS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE. FOR WARRANTY PARTS OR PRODUCTS REPAIRED UNDER WARRANTY SHIPPING TO ADDRESSES OUTSIDE OF THE CONTIGUOUS UNITED STATES, ADDITIONAL SHIPPING CHARGES MAY APPLY.

**THANKS FOR
REMEMBERING**

