CENTRAL MACHINERY



SET UP AND OPERATING INSTRUCTIONS



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Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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For technical questions or replacement parts, please call 1-800-444-3353. Revised Manual 10d

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SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates

a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a

hazardous situation which. if not avoided, could result in death or serious injury.



CAUTION, used

with the safety alert symbol, indicates a hazardous situation which. if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION, without

CAUTION

the safety alert symbol, is used to address practices not related to personal injury.

General Tool Safety Warnings

WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

- KEEP GUARDS IN PLACE and in 1. working order.
- REMOVE ADJUSTING KEYS AND 2. WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- KEEP WORK AREA CLEAN. Clut-3. tered areas and benches invite accidents.
- DON'T USE IN DANGEROUS EN-4. VIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well liahted.
- **KEEP CHILDREN AWAY, All visitors** 5. should be kept safe distance from work area.
- 6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.

- DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)					
NAMEPLATEEXTENSION CORDAMPERESLENGTH					
(at full load)	25'	50'	100'	150'	
0 - 6	18	16	16	14	
6.1 – 10	18	16	14	12	
10.1 – 12	16	16	14	12	
12.1 – 16	14	12	Do not use.		
TABLE A					

- 9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. 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. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
- WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eye-

glasses only have impact resistant lenses, they are NOT safety glasses.

- 12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
- 13. DON'T OVERREACH. Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
- REDUCE THE RISK OF UNINTEN-TIONAL STARTING. Make sure switch is in off position before plugging in.
- USE RECOMMENDED ACCESSO-RIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard

or other part that is damaged should be properly repaired or replaced.

- 20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

Band Saw Safety Warnings

For Your Own Safety Read Instruction Manual Before Operating Saw

- 1. Wear eye protection.
- 2. Do not remove jammed cutoff pieces until blade has stopped.
- Maintain proper adjustment of blade tension, blade guides, and thrust bearings.
- 4. Adjust upper guide to just clear workpiece.
- 5. Hold workpiece firmly against table.
- 6. Keep hands away from cutting area and Saw Blade.
- Properly adjust the upper blade guide, blade tension and thrust bearing before each use to reduce the risk of injury. See Operating Instructions for explanation of needed adjustments.
- Never leave the Bandsaw unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.

- Make sure the Bandsaw is located on a flat, level, sturdy surface capable of supporting the weight of the Saw and workpieces. Always "chock" the Wheels to prevent the Bandsaw from accidentally moving.
- 10. Before using the Bandsaw, check to make sure the Saw Blade is properly mounted and is not cracked or bent.
- 11. Never attempt to cut more than one workpiece at a time.
- Never attempt to cut freehand. Make sure the workpiece to be cut is pressed firmly against the Table and/ or secured in the Vise.
- When cutting a large workpiece, make sure its entire length is properly supported. If necessary, use a roller stand (not included).
- 14. Do not lean on the Bandsaw when the tool is in its upright position.
- 15. When moving the Bandsaw, always have its Head lowered to its horizontal position and the Locking Pin (115) inserted in the Pivot (120).
- 16. Allow the Saw Blade to rotate to full speed before feeding a workpiece into the Blade. When turning off the Bandsaw, allow the Saw Blade to spin down and stop on its own. Do not press against the Saw Blade to stop it.
- 17. Wear heavy-duty work gloves when changing the Saw Blade.
- Turn off the Bandsaw and allow the Saw Blade to completely stop if the Saw Blade is to be backed out of an uncompleted cut.

- 19. Keep all safety guards in place and in proper working order.
- 20. Use indoors only.
- 21. If the teeth of the Saw Blade are so far apart that they straddle the workpiece, severe damage to the workpiece and/or Saw Blade will result.
- 22. The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
- 23. When servicing use only identical replacement parts.
- 24. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
- 25. Industrial applications must follow OSHA guidelines.
- 26. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 27. Avoid unintentional starting. Prepare to begin work before turning on the tool.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:

- Avoid operating alone.
- Do not use with power switch locked on.
- Properly maintain and inspect to avoid electrical shock.

• Any power cord must be properly grounded. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.

- 29. 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 and cement or 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. (California Health & Safety Code § 25249.5, *et seq.*)

- WARNING: Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, et seq.)
- 31. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible con-

ditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

- 1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical checkups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
- 2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
- 3. Wear suitable gloves to reduce the vibration effects on the user.
- Use tools with the lowest vibration 4. when there is a choice between different processes.

- 5. Include vibration-free periods each day of work.
- 6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
- 7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

SAVE THESE INSTRUCTIONS.

GROUNDING INSTRUCTIONS



TO PREVENT ELECTRIC SHOCK AND DEATH FROM **INCORRECT GROUNDING** WIRE CONNECTION READ AND FOLLOW THESE **INSTRUCTIONS:**

Grounded Tools: Tools with Three **Prong Plugs**

- In the event of a malfunction or 1. breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipmentgrounding 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.
- 2. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
- 6. Repair or replace damaged or worn cord immediately.



125 V~ 3-Prong Plug and Outlet (for up to 125 V~ and up to 15 A)

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated above in 125 V~
 3-Prong Plug and Outlet. The tool has a grounding plug that looks like the plug illustrated above in 125 V~
 3-Prong Plug and Outlet.

- 8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
- 9. Do not use an adapter to connect this tool to a different outlet.

Double Insulated Tools: Tools with Two Prong Plugs



Outlets for 2-Prong Plug

- To reduce the risk of electric shock, double insulated equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.
- Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. (See Outlets for 2-Prong Plug.)

SPECIFICATIONS

Motor	120 V~ / 60 Hz / 1 HP / n _o 1700/min
Cutting Capacity	4-1/2" Round Stock /
	4" x 6" Rectangular Stock
Speeds	80 FPM / 120 FPM / 200 FPM
Throat Depth	4-1/2"
Angle Cutting	0° ~ 55° (Left) Miter Plate on
Capacity	Horizontal Cutting Bed
Blade	64" L x 15/32" W x 0.025" Thick /
	14 TPI
Horizontal Bed	11-1/2" L x 7-1/2" W x 23-1/2" Height
Vertical Bed	9-5/8" L x 9-1/2" W x 33-1/2" Height
V-Belt Type	0-506

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts Lists on pages 31** and **32** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

ASSEMBLY INSTRUCTIONS

- Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram on page 33.
- **CAUTION!** Always make sure the Power Switch (164) for the Bandsaw is in its "**OFF**" position and the tool is unplugged from its electrical outlet prior to assembling the tool, adding any accessories, or making adjustments to the tool.

To Assemble The Stand:



- Insert the Pull Handle (173) into the two mounting holes located in the upper section of one Stand (174). Then secure the Pull Handle to the Stand, using two Pins (172). (See Figure A.)
- Attach one end of the Tool Plate (175) to the upper section of one Stand (174), using two Screws (178), two Flat Washers (177), and two Nuts (176). (See Figure A.)
- Attach the other end of the Tool Plate (175) to the upper section of the remaining Stand (174), using two Screws (178), two Flat Washers (177), and two Nuts (176). (See Figure A.)

To Attach The Wheels To The Stand:

Align the two mounting holes in the Wheel Bracket (186) with the two mounting holes located in the lower section of the Stand (174). Then secure the Wheel Bracket to the Stand, using two Hex Bolts (183), two Spring Washers (185), two Flat Washers (184), two Flat Washers (180), and two Nuts (181). **(See Figure A.)**

To Attach The Bandsaw To The Stand:



- 1. With additional manpower, and an adequate lifting device, carefully set the Bandsaw on top of the Stand assembly, making sure the upper section of the Stand fits *outside* the base of the Bandsaw. (See Figure B.)
- Align the *three* threaded mounting holes in each end at the base of the Bandsaw with the three mounting holes located at each end of the Stand assembly. Then secure the Bandsaw to the Stand assembly, using three Screws (59), three Spring Washers (58), and three Flat Washers (57). (See Figure B.)

To Attach The Stock Stop Assembly:

 When mounted to the Bandsaw, the adjustable Stock Stop assembly is used to make repetitive cuts of the same length.



FIGURE C

- To attach the Stock Stop assembly, slide the Shaft (158) into the mounting hole in the Machine Bed (142), and secure the Shaft by tightening the Hex Bolt (149). (See Figure C)
- Slide the Stock Stop (157) onto the Shaft (158), and secure by tightening the Socket Head Screw (156). (See Figure C.)

To Attach The Pulley Cover:



Position the Pulley Cover (72) over the Worm Shaft (9) and Motor Shaft (81). Align the mounting hole in the Pulley Cover with the mounting hole in the Body Frame (60). Then secure the Pulley Cover to the Bandsaw, using one Hex Bolt (76) and one Flat Washer (77). **(See Figure D.)**

To Attach The Spindle Pulley And Motor Pulley:



- FIGURE E
- Slide the Spindle Pulley (1) fully onto the Worm Shaft (9). Then secure the Spindle Pulley to the Worm Shaft, using one Socket Head Screw (2). (See Figure E.)

 Insert the Shaft Key (80) in the slot on the Motor Shaft (81). Align the slot in the Motor Pulley (79) with the Shaft Key. Slide the Motor Pulley fully onto the Motor Shaft. Then secure the Motor Pulley to the Motor Shaft, using one Socket Head Screw (2). (See Figure E.)

To Install The V-Belt:



FIGURE F

The V-Belt (10) can be installed by loosening the Hex Bolt (70) and moving the Motor (81) forward. Place the V-Belt around the top grooves in the Spindle Pulley (1) and Motor Pulley (79). Next, move the Motor backwards to tighten the tension on the V-Belt. Then, re-tighten the Hex Bolt to secure the Motor in place. **(See Figures E and F.)**

To Adjust The Cutting Speed:

 The Bandsaw is designed to cut at three different speeds: 80, 120, and 200 FPM (Feet Per Minute) depending on the type of material being cut.

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

2. Refer to the Chart above to determine the proper cutting speed for a specific type of material being cut.



FIGURE G

- The cutting speed can be adjusted by loosening the Hex Bolt (70) and moving the Motor (81) forward. Place the V-Belt around the desired grooves in the Spindle Pulley (1) and Motor Pulley (79). Next, move the Motor backwards to tighten the tension on the V-Belt. Then, re-tighten the Hex Bolt to secure the Motor in place. (See Figures E, F, and G.)
- AWARNING! Always securely close the Lid on the Pulley Cover (72) after installing a V-Belt (10) or adjusting the cutting speed.

To Convert The Bandsaw For Vertical Use:

NOTE: Notching, slitting, and contour work is best done with the Bandsaw in its vertical position.



Raise the Saw Head to its full vertical position, making sure it locks in position by turning the Support Plate (150) to the right until it firmly locks into the Body Frame (60) and inserting the Locking Pin (153).
 (See Figure H.)

SMALL VERTICAL CUTTING PLATE (194)





FIGURE I

- Remove the two Screws (190), and remove the Small Vertical Cutting Plate (194). (See Figure I.)
- Guide the Saw Blade (82) through the slot in the Vertical Cutting Plate (189), and secure it in position with the two Screws (190).
 (See Figure I.)



FIGURE J

 Insert one Screw (190) downward through the mounting hole in the Vertical Cutting Plate (189). Attach the top section of the Vertical Cutting Plate Support (191) to the Vertical Cutting Plate (189), using one Flat Washer (192) and one Nut (193). Remove the Hex Head Bolt (61). Position the Vertical Cutting Plate Support against the Body Frame (60). Then firmly re-tighten the Hex Head Bolt. (See Figures I and J.)

OPERATING INSTRUCTIONS

CAUTION! Turn the Power Switch (164) to its "**OFF**" position and unplug the tool from its electrical outlet prior to making adjustments to the tool.

To Use The Vise:

 Raise the Body Frame (60) to its vertical position, and lock the Body Frame in place with the Support Plate (150) and Locking Pin (153).

(See Figure H.)



- 2. Open the Moveable Vise Plate (141) to accept the piece of material to be cut by rotating the Hand Wheel (171) counterclockwise. **(See Figure K.)**
- Place the workpiece on the Machine Bed (142). If the workpiece is long, support the end. (See Figure K.)

4. Clamp the workpiece firmly with the Moveable Vise Plate (141) by rotating the Hand Wheel (171) clockwise. (See Figure K.)

To Use The Quick Vise Adjustment For An Angle Cut:

Loosen the Hex Bolt (136), and move the Mitering Vise Plate (138) to the threaded hole position. Adjust the Mitering Vise Plate to the desired angle as indicated by the Angle Scale (165). Loosen the Hex Bolt (139), and adjust the Moveable Vise Plate (141) to parallel the Mitering Vise Plate. Then, re-tighten the Hex Bolt. **(See Figure L.)**



Adjustments

To Adjust The Stock Stop:



- 1. Loosen the Socket Head Screw (156) that holds the Stock Stop (157) to the Shaft (158). **(See Figure M.)**
- Adjust the Stock Stop (157) to the desired length position. Then, retighten the Socket Head Screw (156). (See Figure M.)

Adjusting The Blade Guide Bearings:

- **NOTE:** Blade Guide Bearings (88, 92, 100, 104) adjustment is a critical factor in the performance of the Bandsaw.
- It is always best to try a new Saw Blade (82) to see if it will correct poor cutting before attempting to adjust the Blade Guide Bearings. For example, if a Saw Blade becomes dull on one side sooner than the other, it will begin cutting crooked. A Saw Blade replacement will correct this problem, whereas Blade Guide Bearings adjustment will not.





- If a new Saw Blade does not correct the problem, check the Blade Adjustable Seats (83, 110) to obtain the proper clearance. (See Figure N.)
- There should be from .000" (just touching) to .001" clearance between the Saw Blade and Blade Guide Bearings (88, 92, 100, 104). To obtain this clearance adjust as follows:
 - a. The *Outer* Blade Guide Bearings (92, 104) are mounted to Shafts (91, 103) and can be adjusted.
 (See Figure N.)
 - b. Loosen the Nuts (86, 96) while holding the Shafts (91, 103) with a Hex Key (not included). **(See Figure N.)**
 - c. Position the Shafts (91, 103) by turning it to the desired position of clearance. Then, re-tighten the Nuts (86, 96). (See Figure N.)
 - d. Adjust the *Inner* Blade Guide Bearings (88, 100) in the same manner.

Adjusting The Blade Tracking:

 Raise the Saw Head to its full vertical position, making sure it locks in position by turning the Support Plate (150) to the right until it firmly locks into the Body Frame (60) and inserting the Locking Pin (153). (See Figure H.)

- Turn on the Bandsaw. The Saw Blade (82) is tracking properly when the back of the Blade is just touching the edge of the Blade Wheel (37) flange. The back of the Blade should not be rubbing against the flange. (See Figure P.)
- If adjustment is necessary, the Blade Guide Bearings (88, 92, 100, 104) should be clear of the Saw Blade
 - (82). (See Figure N.)





FIGURE O

- Loosen the middle Hex Bolt (21) to a point where it is loose but snug. (See Figure O.)
- With the Bandsaw running, turn the lower Screw (22) until the Saw Blade (82) is tracking properly, making sure Blade tension is maintained by turn-

ing the Blade Tension Adjusting Knob (34). **(See Figure O.)**

 Re-tighten the middle Hex Bolt (21) when adjustment is complete. (See Figure O.)

Adjusting The Blade Tension:



FIGURE P

 Turn the Blade Tension Adjusting Knob (34) *clockwise* to increase tension on the Saw Blade (82). Turn the Blade Tension Adjusting Knob *counterclockwise* to decrease tension on the Saw Blade. Correct tension is acquired when the Saw Blade is just tight enough so that no slippage occurs between the Saw Blade and the Blade Wheels (37, 54). (See Figure P.) 2. When the Bandsaw is not in use over long periods of time, release the tension on the Saw Blade (82).

Adjusting The Feed Rate:



The feed rate of the Body Frame (60) can be adjusted by turning the Handle (127) *clockwise* to decrease the feed rate or *counterclockwise* to increase the feed rate. Do not turn the Handle more than one turn at a time. Excessive feed pressure can break the Saw Blade (82). Insufficient feed pressure dulls the Saw Blade rapidly. (See Figure Q.)

Adjusting The Blade Guide Brackets:



FIGURE R

- The Right Blade Guide Bracket (90) and Left Blade Guide Bracket (102) are adjustable by loosening the Guide Adjusting Knob (45) and sliding the Brackets up or down to accommodate the depth of the workpiece. (See Figure R.)
- The Blade Guide Brackets (90, 102) should be set as close as possible to the workpiece, without interfering with the workpiece or contacting the Machine Bed (142). (See Figure R.)
- Once the adjustment is made, make sure to re-tighten the Guide Adjusting Knob (45). (See Figure R.)

Basic Bandsaw Operation --Vertical Position:

- 1. **AWARNING!** Always wear ANSIapproved safety impact eye goggles when operating the Bandsaw.
- 2. Do not plug the Power Cord Plug into an electrical outlet until all necessary adjustments (as previously discussed in this manual) have been made.



- 3. Raise the Body Frame (60) to its full vertical position, making sure it locks in place by turning the Support Plate (150) to the right until it firmly locks into the Body Frame and inserting the Locking Pin (153). **(See Figure S.)**
- Once all necessary adjustments to the Bandsaw have been made, plug the Power Cord Plug into the nearest 120 volt, grounded, electrical outlet.
- 5. Turn the Power Switch (164) to its "ON" position. (See Figure S.)
- 6. **ACAUTION!** Cut only *flat* workpieces when the Bandsaw is in its vertical

position. Never attempt to cut pipes or other round objects with the Bandsaw in its vertical position.

- Before cutting, turn on the Bandsaw and check for excessively loose Saw Blade (82) tension or machine vibration. If this is found, turn off the Bandsaw and correct the problem before using. (See Figure S.)
- Set the workpiece on the Vertical Cutting Plate (189), making sure to keep downward pressure on the workpiece throughout the cutting process. (See Figure S.)
- When cutting a large workpiece, make sure its entire length is properly supported. If necessary, use a roller stand (not included) with a larger workpiece.
- Allow the Saw Blade (82) to turn up to full speed before feeding the workpiece into the Saw Blade. (See Figure S.)
- 11. **A**WARNING! Keep hands and fingers safely away from the cutting area.
- Feed the workpiece into the Saw Blade (82) gradually. Do not force the Bandsaw to remove material faster than it is designed to cut. (See Figure S.)
- Never attempt to remove material stuck in the moving parts of the Bandsaw while it is plugged in and running. Turn off the Bandsaw if the workpiece is to be backed out of an uncompleted cut.
- Once the cut is made, turn the Power Switch (164) to its "OFF" position. Then, unplug the Power Cord Plug

from its electrical outlet. (See Figure S.)

- Wait until the Saw Blade (82) comes to a complete stop. Then, remove the workpiece and scrap material from the Vertical Cutting Plate (189). (See Figure S.)
- Remove the Locking Pin (153) and turn the Support Plate (150) to the left. Then, lower the Body Frame (60) to its horizontal position.
 (See Figure S.)

Basic Bandsaw Operation --Horizontal Position:

- 1. **AWARNING!** Always wear ANSIapproved safety impact eye goggles when operating the Bandsaw.
- 2. Do not plug the Power Cord Plug into an electrical outlet until all necessary adjustments (as previously discussed in this manual) have been made.
- 3. Raise the Body Frame (60) to its full vertical position, making sure it locks in place by turning the Support Plate (150) to the right until it firmly locks into the Body Frame and inserting the Locking Pin (153). **(See Figure S.)**

- Secure the workpiece in the Vise assembly (138, 141). When cutting a large workpiece, make sure its entire length is properly supported. If necessary, use a roller stand (not included) with a larger workpiece. (See Figure T.)
- 5. If cutting several workpieces at the same length, you may wish to adjust the Stock Stop (157) to the desired position. **(See Figure T.)**
- Once all necessary adjustments to the Bandsaw have been made, plug the Power Cord Plug into the nearest 120 volt, grounded, electrical outlet. (See Figure T.)
- Turn the Power Switch (164) to its "ON" position, and slowly lower the Body Frame (60) until the Saw Blade (82) is just above the workpiece cut line. (See Figure T.)
- Before cutting, turn on the Bandsaw and check for excessively loose Saw Blade (82) tension or machine vibration. If this is found, turn off the Bandsaw and correct the problem before using. (See Figure T.)
- 9. Allow the Saw Blade (82) to turn up to full speed before feeding the Saw



Blade into the workpiece. (See Figure T.)

- 10. **AWARNING!** Keep hands and fingers safely away from the cutting area.
- Slowly lower the Body Frame (60), while it gradually feeds the Saw Blade (82) into the workpiece. Do not force the Bandsaw to remove material faster than it is designed to cut. (See Figure T.)
- 12. Never attempt to remove material stuck in the moving parts of the Bandsaw while it is plugged in and running. Turn off the Bandsaw if the workpiece is to be backed out of an uncompleted cut.
- 13. **IMPORTANT:** When in the horizontal cutting mode only, the Switch Push-Off Tip (41) will automatically turn the Power Switch (164) to its "**OFF**" position and shut off the Bandsaw's Motor when the cut has been completed. **(See Figure T.)**
- Once the cut is made, check to make sure the Power Switch (164) is in its "OFF" position. Then, unplug the Power Cord Plug from its electrical outlet. (See Figure T.)

15. Wait until the Saw Blade (82) comes to a complete stop. Next, raise the Body Frame (60) to its full vertical position, making sure it locks in place by turning the Support Plate (150) to the right until it firmly locks into the Body Frame. Remove the workpiece from the Vise assembly (138, 141) and scrap material from the Machine Bed (142) of the Bandsaw. Then, slowly lower the Body Frame (60) to its horizontal position and lock it in place with the Locking Pin (115). (See Figure T.)

INSPECTION, MAINTENANCE, AND CLEANING

- 1. **AWARNING!** Make sure the Power Switch (164) is in its "**OFF**" position and the tool is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
- Before each use, inspect the general condition of the Bandsaw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. Do not use damaged equipment.
- Before each use, inspect the Saw Blade (82). Using a dull Saw Blade will cause excessive wear on the Mo-

tor of the Bandsaw and will not produce a satisfactory cut. Replace with a new Saw Blade when needed. To replace a Saw Blade:

- a. **NOTE:** Wear heavy-duty work gloves to avoid accidental cuts from the Saw Blade (82) when performing this procedure.
- b. Raise the body Frame (60) to its full vertical position, making sure it locks in place by turning the Support Plate (150) to the right until it firmly locks into the Body Frame, and insert the Locking Pin (153). (See Figure S.)
- c. Release Saw Blade (82) tension by turning the Blade Tension Knob (34).
 (See Figure U.)
- d. Slip the old Saw Blade (82) off the Upper Blade Wheel (37), Lower Blade Wheel (54), and Guide assemblies. **(See Figure U.)**



- e. Place the new Saw Blade (82) between each of the Guide assemblies and around the Upper Blade Wheel (37) and Lower Blade Wheel (54).
 IMPORTANT: The teeth must be pointing <u>downward</u> toward the Motor. (See Figure U.)
- f. **NOTE:** The Bandsaw is equipped with a 64" diameter, .025" thick, 15/32" wide, 14 teeth per inch Saw Blade (82). The machine will also accept Blades in 4, 6, 8, and 10 tooth sizes. The choice of Blade pitch is determined by the thickness of the material to be cut. The thinner the workpiece, the more teeth is recommended. A minimum of 3 teeth should engage the workpiece at all times for proper cutting.

(See Figure U.)

CAUTION: If the teeth of the Saw Blade are so far apart that they straddle the workpiece, severe damage to the workpiece and/or Saw Blade will result.

- g. Tighten the tension on the new Saw
 Blade (82) by turning the Blade Tension Knob (34). (See Figure U.)
- h. Close the Blade Back Cover (114). (See Figure U.)
- 4. **To replace the V-Belt:** The Bandsaw uses a size 0-506 V-Belt (10). To replace the V-Belt:



FIGURE V

- a. Open the Pulley Cover (72). (See Figure V.)
- b. Loosen the Hex Bolt (70) to release tension on the old V-Belt.
 (See Figure F.)
- c. Remove the old V-Belt (10) from the two Pulleys (1, 79). **(See Figure V.)**
- d. Place the new V-Belt (10) into the proper Pulley (1, 79) combination for the desired Blade speed.
 (See Figures G and V.)
- e. Adjust the position of the Motor (81) to obtain approximately 1/2" depression in the V-Belt (10) when applying pressure with your thumb.
 (See Figure V.)
- f. Tighten the Hex Bolt (70) to secure the Motor (81) in place.
 (See Figure T.)

- 5. To lubricate the Worm Gear and Worm Shaft: The Worm Gear (17) and Gear Shaft (19) run in an oil bath Gear Box and should not require an oil change more than once a year, unless the oil becomes contaminated or a leak occurs due to improper replacement of the Gear Box Cover (14). To change oil in the Gear Box:
 - a. Position the Body Frame (60) in the horizontal position. **(See Figure S.)**





FIGURE W

- b. Remove the four Hex Bolts (11), Gear Box Cover (14), and Gear Box Gasket (15). **(See Figure W.)**
- c. Remove the old oil from inside the Gear Box and replace the oil using 140 weight gear oil. The new oil should just come to the edge of the Gear Box. Do not overfill. (See Figure W.)
- d. Replace the Gear Box Gasket (15), Gear Box Cover (14), and four Hex Bolts (11). **(See Figure W.)**

6. To clean the exterior parts of the Bandsaw, use only a clean cloth and mild detergent or mild solvent to clean the body of the Saw. Do not immerse any electrical part of the machine in any liquids.



FIGURE X

- When the Bandsaw is not in use or when transporting the tool: Always lower the Body Frame (60) to its horizontal position and insert the Locking Pin (115) into the Pivot (120) to secure the Body Frame in place. (See Figure X.)
- 8. ACAUTION! All maintenance, service, or repairs not mentioned in this manual must only be performed by a qualified service technician.

TROUBLESHOOTING

Problem	Possible Cause(s)	Possible Solution
Excessive	1. Incorrect Blade tension.	1. Tighten Blade tension. (See Page 20.)
Blade breakage.	2. Incorrect speed or feed.	2. Check manual for correct Blade speed. (See Page 15.)
	3. Material loose in vise.	3. Clamp work securely.
	4. Blade rubs on Wheel Flange.	4. Adjust Wheel alignment. (See Page 20.)
	5. Teeth too course for material.	5. Check manual for recommended Blade type. (See Page 27.)
	6. Teeth in contact with material before Saw started.	6. Allow Blade to spin up to full speed before feeding material into it.
	7. Misaligned Guides.	7. Adjust Guides. (See Page 19.)
	8. Blade too thick for Wheel diameter.	8. Use thinner Blade. (See Page 27.)
Premature	1. Teeth too course.	1. Use finer tooth Blade. (See Page 27.)
Blade dulling.	2. Too much speed.	2. Try next lower speed. (See Page 15.)
	3. Inadequate feed pressure.	3. Decrease spring tension on side of Saw. (See Page 21.)
	4. Hard spots or scale in/on material.	4. Reduce speed, increase feed pressure. (See Pages 15 and 21.)
	5. Work hardening of material.	5. Increase feed pressure by reducing spring tension. (See Page 21.)
	6. Blade installed backwards.	6. Remove Blade. (See Page 26.)
	7. Insufficient Blade tension.	7. Increase tension to proper level. (See Page 20.)
Blade Cuts Crooked.	1. Workpiece not square.	 Adjust Vise so it is square with Blade. Always clamp work tightly in Vise. (See Page 17.)
	2. Feed pressure too great.	2. Reduce pressure by increasing spring tension on side of Saw. (P. 21.)
	3. Guide Bearing not adjusted property.	 Adjust Guide Bearing to .001 greater than maximum thickness, including the weld of the Saw. (See Page 19.)
	4. Inadequate Blade tension.	4. Increase Blade tension a little at a time. (See Page 20.)
	5. Blade Guides spaced out too much.	5. Move Guide as close to work as possible. (See Page 22.)
	6. Dull Blade.	6. Replace Blade. (See Page 26.)
	7. Speed incorrect.	7. Check manual for recommended speeds. (See Page 15.)
	8. Blade Guide assembly loose.	8. Tighten Blade Guide assembly. (See Page 22.)
	9. Blade Guide Bearing assembly loose.	9. Tighten Blade Guide Bearing assembly. (See Page 19.)
	10. Blade tracks too far away from Wheel Flanges.	10. Re-track Blade according to operating instructions. (See Page 20.)
Blade cuts rough.	1. Too much speed or feed.	1. Reduce speed and feed. (See Pages 15 and 21.)
	2. Blade is too coarse.	2. Replace with finer Blade. (See Page 27.)
Blade is twisting.	1. Cut is binding Blade.	1. Decrease feed pressure. (See Page 15.)
Universities	2. Too much Blade tension.	2. Decrease Blade tension. (See Page 20.)
Unusual wear on side/back	1. Blade Guides worn.	1. Replace Blade Guides. (See Page 19.)
of Blade.	2. Blade Guide Bearings not adjusted properly.	2. Adjust according to operator's manual. (See Page 19.)
Teeth ringing	3. Blade Guide Bearing Bracket is loose.	3. Tighten Blade Guide Bearing Bracket. (See Page 19.)
from Blade.	1. Leeth too coarse for work.	Use finer tooth Blade. (See Page 27.) Increase feed pressure and/or speed. (See Pages 15 and 21.)
	 Too heavy feed or too slow feed. Vibrating workpiece. 	 Increase reed pressure and/or speed. (See Pages 13 and 21.) Clamp work securely. (See Page 17.)
	4. Teeth filled with debris.	 Champ work securely. (See Page 17.) Use coarse tooth Blade or brush to remove debris. (See Page 27.)
Motor running too hot.	1. Blade tension too high.	See Coarse tooin blade of brush to remove debris. (See Page 27.) Reduce tension on Blade. (See Page 20.)
100 1101	2. Drive Belt tension too high.	2. Reduce tension on Drive Belt. (See Page 14.)
	3. Blade is too coarse for work.	3. Use finer Blade. (See Page 27.)
	4. Blade is too fine for work.	4. Use coarser Blade. (See Page 27.)
	5. Gear not aligned properly.	5. Adjust Gears so that Worm is in center of Gear. (See Page 28.)
	6. Gears need lubrication.	6. Check Oil Bath. (See Page 28.)
	7. Idler Wheel needs lubrication.	7. Lubricate Bearing/Shaft on Idler Wheel. (See Assy. Diagram.)

		PAR	0	LIC	
Part #	Description	Qty		Part #	T
1	Spindle Pulley	1	1	42	W
2	Socket Head Screw(M8x8)	1		43	FI
3	Screw(M4x8)	1		44	S
4	Flat Washer(4)	1		45	S١
5	Flat Washer(5)	1]	46	FI
6	Screw(M4x8)	2		47	S
7	Seal Cover	1		48	S
8	Oil Seal(B15x35x7)	1		49	A
9	Bearing(6202Z)	1		50	FI
10	Spacer	1		51	S
11	Bearing(6202Z)	1		52	В
12	Worm	1	1	53	0
13	V-Belt	1	1	54	S
14	Hex Bolt(M6x16)	6	1	55	s
15	Spring Washer(6)	6	1	56	S
16	Flat Washer(6)	6	İ	57	В
17	Gear Box Cover	1	İ	58	s
18	Gear Box Gasket	1	ĺ	59	R
19	Key(C5x28)	2	İ	60	FI
20	Gear	1	İ	61	s
21	Pin(5x26)	1	1	62	В
22	Gear Shaft	1		62-1	н
23	Hex Bolt(M8x30)	1	1	62-2	N
24	Hex Bolt(M8x16)	1		63	н
25	Hex Bolt(M8x30)	1		64	FI
26	Flat Washer	1		65	S
27	Hex Bolt(M6x12)	4		66	S
28	Spring Washer(6)	4	1	67	FI
29	Blade Tension Sliding Plate	1	ĺ	68	В
	Flat Washer(6)	4	İ	69	м
31	Blade Tension Sliding Guide	2	ĺ	70	н
32	Sliding Plate Draw Block	1	ĺ	71	N
33	Blade Wheel Shaft	1	1	72	FI
34	Nut	1	İ	72-1	S
35	Spring	1	ĺ	73	н
36	Flat Washer	1	1	74	н
37	Blade Tension Adjusting Knob	1	1	75	P
38	Spacer	1	1	76	K
39	Bearing(6202Z)	2	1	77	FI
40	Spacer	2		78	S
41	Blade Wheel	1		79	S

PARTS LIST

Description Qty Vasher 1 lat Washer(5) 1 ocket Head Screw(M5x15) 1 witch Push-Off Tip 1 lat Washer(6) 1 1 pring Washer(6) crew(M6x14) 1 djusting Knob 1 lat Washer 1 1 pacer earing(6202Z) 2 Dil Seal(B15x35x7) 1 eal Cover 1 crew(M4x8) 3 1 pacer lade Wheel 1 ocket Head Screw(M8x8) 1 Ring(15) 1 lat Washer(4) 4 crew(M4x6) 4 1 ody Frame lex Bolt(M6x25) 1 1 lut lex Bolt(M10x30) 1 lat Washer 1 1 crew(M6x10) 1 pring Washer(6) lat Washer(6) 1 olt(M12x30) 1 Notor Plate 1 lex Bolt(M8x55) 1 1 lut lat Washer(8) 4 pring Washer(8) 4 lex Bolt(M8x20) 4 1 lex Bolt(M12x35) ulley Cover 1 nob 1 lat Washer(4) 1 crew(M4x8) 1 ocket Head Screw(M8x8) 1

		PARISLI		
Part #	Description	Qty	Part #	ŧ
80	Motor Pulley	1	122	Spring
81	Key(C5x28)	1	123	Spring Adjusting
82	Motor	1	124	Hex Bolt(M6x12
83	Blade	1	125	Spring Washer(
84	Blade Guide Bracket Seat	1	126	Flat Washer(6)
85	Flat Washer(16)	1	127	Support
86	Spring Washer(8)	1	128	Adjusting Rod
87	Hex Bolt(M8x30)	1	129	Handle
88	Nut	2	130	Support
89	Spring Washer(8)	2	131	Hex Bolt(M8x20
90	Bearing(180029)	1	132	Spring Washer(8
91	Pin	1	133	Flat Washer(8)
92	Balde Guide Bracket	1	134	Nut
93	Shaft	2	135	Pivot Rod
94	Bearing(180029)	2	136	Pin(4x25)
95	Ring(9)	2	137	Flat Washer(16)
96	Blade Guard	1	138	Bolt
97	Screw(M6x16)	2	140	Hex Bolt(M8x40
98	Nut	2	141	Flat Washer(8)
99	Spring Washer(8)	2	142	Nut
100	Hex Bolt(M8x30)	1	142-1	Flat Washer
101	Spring Washer(8)	1	143	Mitering Vise Pla
102	Falt Washer	1	144	Hext Bolt(M10x2
103	Bearing(180029)	1	145	Flat Washer
104	Pin	1	146	Moveable Vise F
105	Balde Guide Bracket	1	147	Machine Bed
106	Shaft	2	148	Screw(M5x8)
107	Bearing(180029)	2	149	Flat Washer(5)
	Ring(9)	2	150	Pull Relief
	Blade Guard	1	151	Hex Bolt(M12x7
110	Flat Washer(4)	2	152	Nut
111	Screw(M4x6)	2	153	Socket Head Sc
112	Blade Guide Bracket Seat	1	154	Support Plate
113	Screw(M6x10)	1	155	Flat Washer(8)
114	Flat Washer(6)	1	156	Hex Bolt(M8x16
115	Blade Back Cover	1	157	Nut
116	Locking Pin	1	158	Locking Pin
117	Socket Head Screw(M10x35)	2	158-1	Button
	Spring Washer(10)	2	159	Falt Washer(5)
	Flat Washer	2	160	Screw(M5x18)
	Socket Head Screw(M8x8)	1	161	Socket Head So
121	Pivot	1	162	Stock Stop

PARTS LIST (CONT.)

For technical questions, please call 1-800-444-3353.

PARTS LIST (CONT.)

Part #	Description	Qty
163	Shaft	1
164	Cable Protector	1
165	Switch Panel	1
165-1	Switch Box	1
166	Screw(M3.9x30)	2
167	Pull Relief	2
168	Power Cord	1
168-1	Serrated Washer(5)	2
168-2	Bolt	2
168-3	Terminal	2
168-4	Rubber	4
168-5	Metal Plate	4
169	Power Switch	1
170	Angle Scale	1
171	Rivet	2
172	Lead Screw Support	1
173	Flat Washer(6)	2
174	Spring Washer(6)	2
175	Hex Bolt(M6x18)	2
176	Nut	1
177	Lead Screw	1
178	Spacer	1
178-1	Socket Head Screw(M6x6)	1
179	Hex Bolt(M6x12)	1

Part #	Description	Qty
180	Handle Wheel	1
181	Pin(2.5)	2
182	Pull Handle	1
183	Stand	2
184	Tool Plate	1
185	Nut	4
186	Flat Washer(6)	4
187	Screw(M6x12)	4
188	Stand Support	4
189	Nut	8
189-1	Flat Washer(6)	8
190	Wheel	2
191	Hex Bolt(M6x12)	8
192	Flat Washer(6)	8
193	Spring Washer(6)	8
194	Wheel Bracket	1
195	Wheel Shaft	1
196	Pin(2.5)	4
197	Vertical Cutting Plate	1
198	Screw(M6x16)	1
199	Vertical Cutting Plate Support	1
200	Flat Washer	1
201	Nut	1

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

PLEASE READ THE FOLLOWING CAREFULLY

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LIMITED 1 YEAR / 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that for a period of ninety days from date of purchase that the engine/motor, the belts (if so equipped), and the blades (if so equipped) are free of defects in materials and workmanship. Harbor Freight Tools also warrants to the original purchaser, for a period of one year from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or to lack of maintenance. 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 product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

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

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