

# Instruction Manual

## Portable Band Saws

### 3125 Variable Speed

### 3127 Two Speed

### Cleaning

Clean the outside of the Band Saw only with a rag. Do not use solvents or abrasive cleaners. Periodically clean the blade guides with compressed air to eliminate metal filing accumulation (WEAR SAFETY GLASSES). If rubber tires become contaminated with metal filings, replace the tires.

### Important

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustments should be performed by Black & Decker Service Centers or other qualified service organizations, always using Black & Decker replacement parts.

### Commercial/Industrial Use Warranty

Black & Decker (U.S.) Inc. warrants this product for one year from the date of purchase. We will repair without charge, any defects due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station listed under "Tools Electric" in the yellow pages. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others.



Like most Black & Decker products your tool is listed by Underwriters Laboratories to ensure that it meets stringent safety requirements.

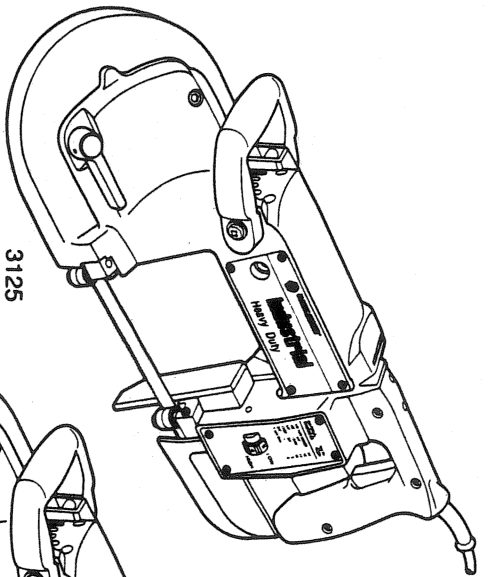
This symbol on the nameplate means the product is listed by Underwriters Laboratories, Inc.



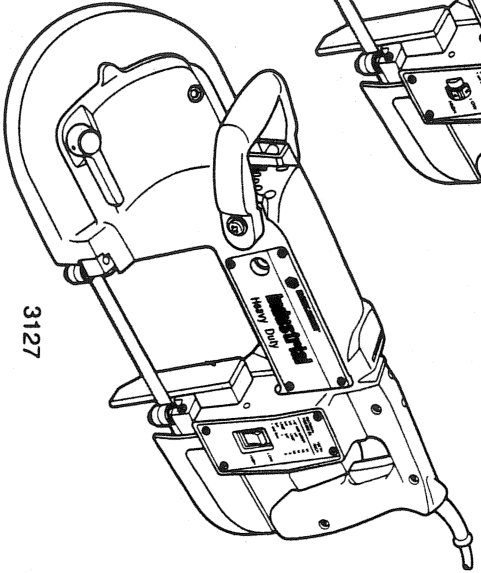
**BLACK & DECKER**

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3125



3127

## Thanks For Selecting a Black & Decker Portable Band Saw.

Your new portable band saw features two speed or variable speed for cutting different shapes and types of materials, fast easy blade changing without extra tools and Black & Decker's famous toughness and quality. Your band saw is a real value that you'll use for years to come. Please take a few minutes

and read this informative instruction manual. Only when you understand the features and limitations of your new saw will you be able to get the most from it. Pay particular attention to the safety instructions we've provided for your protection. Thanks, again for buying a Black & Decker!



**BLACK & DECKER**

as shown in Figure 15. Let the tool sit for one minute for the oil to collect.

2. Look through the oil level window and observe the level of the oil. The proper level just touches the bottom of the red dot in the center of the window. **DO NOT FILL ABOVE THIS LEVEL.** The minimum oil level is shown in Figure 16.

It is very important that the proper oil level be maintained in your saw as insufficient oil will cause excessive wear. Never fill the gear chamber completely. Overfilling will cause the pumping action of the gears to build up pressure and force oil through the seals and into the motor chamber. This could cause motor failure.

3. Tilt the saw up on end (to prevent spillage) and remove the 1 1/4" hex shaped oil filler cap and add or subtract oil until the proper level is achieved when measured as described in steps 1 & 2 above. (See Figure 17). 1 to 2 tablespoons of oil will usually be sufficient if the oil is low.

Always use Black and Decker Band Saw Gear Lube (Catalog No. 761555-00, 6 oz. tube). Use of any other oil will cause excessive gear wear and void your warranty.

FIG. 15 OIL LEVEL

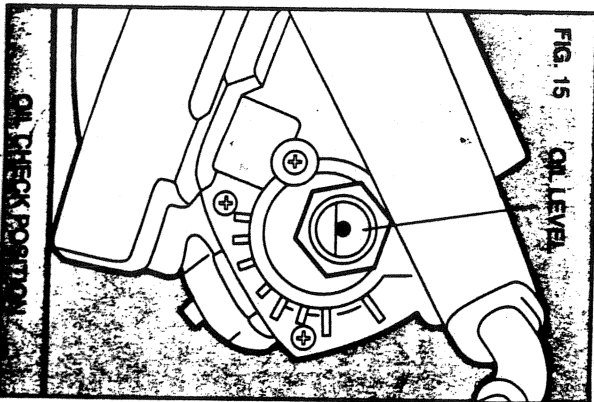
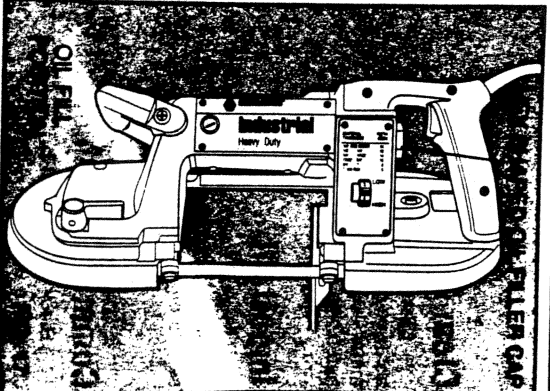
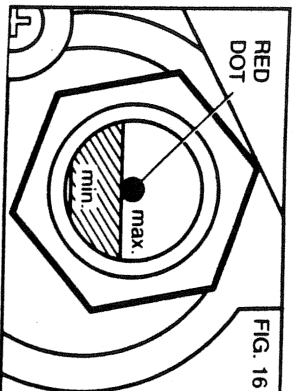


FIG. 16

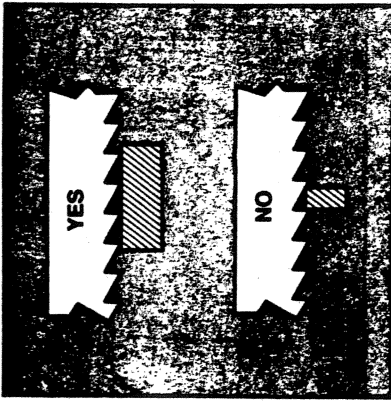


### Motor

Be sure your power supply agrees with the voltage marked on the nameplate. Volts AC Hz means Alternating current only. Volts AC/DC means it will also operate on Direct Current. Voltage decrease of more than 10% will cause loss of power and overheating. All B&D tools are factory-tested. If this tool does not operate, check the power supply line for blown fuses and the plug and receptacle for proper contact.

### Motor Brushes (Unplug Tool)

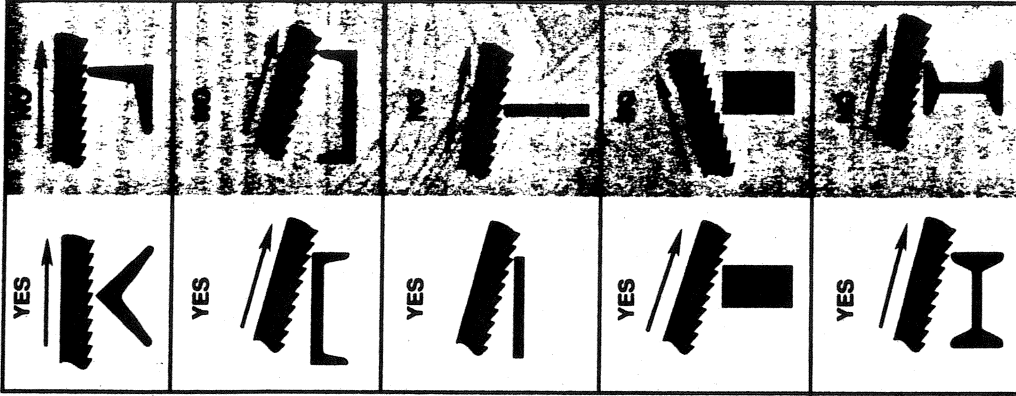
Inspect carbon brushes frequently by removing the brush inspection caps on each side of the tool (Figure 2, next page) and withdrawing the brush and spring assembly. Replace when brushes are worn down to the identifying letter or groove or when spring exerts insufficient pressure to hold brush against commutator. Keep brushes clean and sliding freely in their guides.



because the softer materials tend to fill the smaller gullets of fine pitch blades causing blade overheating and possible failure.

- Harder materials require finer pitch blades (more teeth per inch) because there are more teeth in the blade; each tooth does less work and will stay sharp longer.
  - The finish of the cut on any material will improve by using finer pitch blades (more teeth per inch).
  - The saw will cut faster if a coarser pitch blade (less teeth per inch) is used. However, at least two teeth should be engaged or tooth breakage and blade failure may result.
  - When cutting Brass or Aluminum, particularly thick sections or solid bars, stick wax such as #140 Johnsons Stick Wax is recommended. The stick wax should be applied by light pressure of the wax against the moving blade teeth. The wax should be reapplied intermittently for most efficient cutting.
- NOTE: Do not use wax excessively as it may adhere to pulley tires and cause blade slippage. Make sure pulley tires and blade are wiped clean of wax after aluminum cutting is complete or between cuts if problems occur. Do not use wax excessively.
- CAUTION:**  
Position hands securely to prevent sudden movement toward the blade.

### RECOMMENDED METHODS OF CUTTING VARIOUS SHAPES OF MATERIALS



### Lubrication

**(TURN OFF AND UNPLUG THE BAND SAW)**

Your Band Saw was filled with oil to the proper level at the factory and should not "use" oil under normal circumstances. Check the oil level every 8 operating hours, more often if leakage occurs. Excessive leakage indicates tool needs servicing.

To check the oil level:

- Place the saw on a flat, level surface

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using Electric Tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following :

### READ ALL INSTRUCTIONS

- KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.
- GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerators enclosures.
- KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool or extension cord.
- STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place - out of reach of children.
- DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended, for example, don't use circular saw for cutting tree limbs or logs.
- DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- USE SAFETY GLASSES.** Also use face or dustmask if cutting operation is dusty.
- DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- DON'T OVERREACH.** Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
- OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- 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 defective should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- DO NOT OPERATE** portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

## SAVE THESE INSTRUCTIONS

## Additional Safety Rules - Saws

1. **DISCONNECT PLUG** from power supply before changing blades, inspecting, cleaning or when saw is not being used.
2. **KEEP HANDS AWAY** from cutting area.
3. **WHEN SAWING** never reach underneath the material for any reason.
4. **KEEP BLADE SHARP.** Dull blades may cause the saw to swerve or stall under pressure.
5. **IF YOU DROP THE SAW,** unplug it first; then check all external parts including blade and blade guard. Repair or replace damaged parts before using saw.
6. **KEEP BLADE GUARD** in place and in working order.
7. **ALWAYS USE WORKSTOP.**
8. **NEVER OPERATE BAND SAW WITHOUT HOLDING IT WITH BOTH HANDS.**

**SAVE THESE INSTRUCTIONS**

## Grounding Instructions

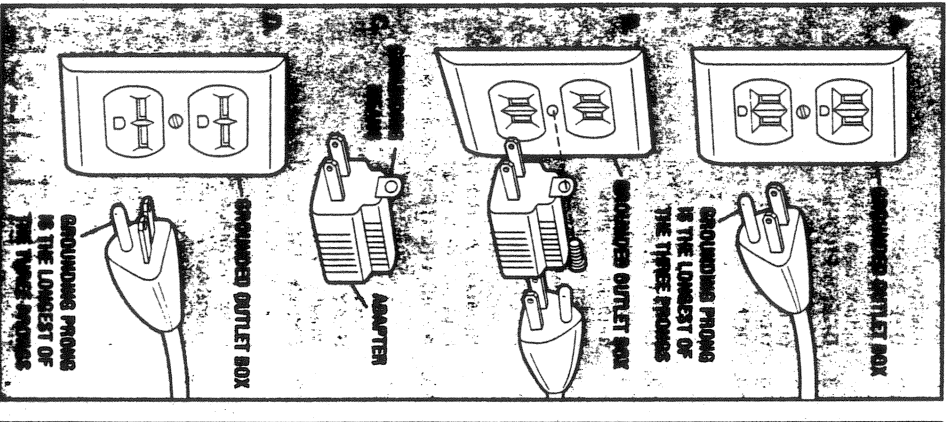
This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved three-conductor cord and three-prong grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

If your unit is for use on less than 150 volts, it has a plug like that shown in Figure A.

If it is for use on 150 to 250 volts, it has a plug like that shown in Figure D.

An adapter, Figures B and C, is available for connecting Figure A plugs to two-prong receptacles. The green-colored rigid ear, lug, etc., must be connected to a permanent ground such as a properly grounded outlet box. No adapter is available for a plug as shown in Figure D. Adapter shown in Figure B & C is Not for Use in Canada.

We recommend that you **NEVER** disassemble the tool or try to do any rewiring in the electrical system. Any repairs should be performed only by B&D Service Centers or other qualified service organizations. Should you be determined to make a repair yourself, remember that the green colored wire is the "grounding" wire. Never connect this green wire to a "live" terminal. If you replace the plug on the power cord, be sure to connect the green wire only to the grounding (longest) prong on a 3-prong plug.



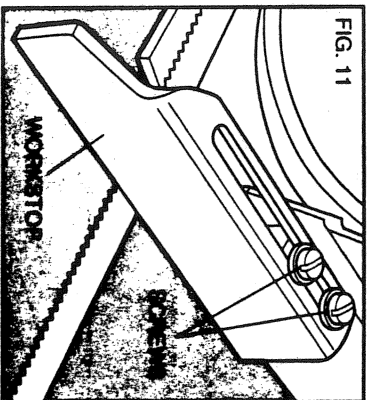
F. Turn the saw **ON** and **OFF** a few times to ensure that the blade is seated properly.

## Adjustable Workstop

The workstop is adjustable to provide cutting support for large diameter or thicker pieces. The longer or thicker the workpiece, the greater the workstop extension required.

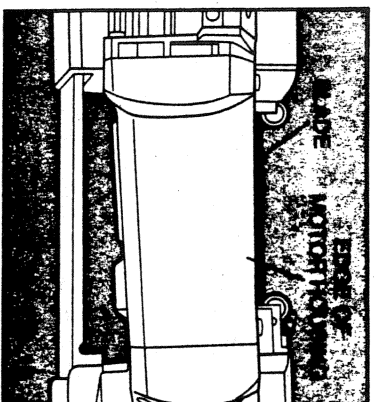
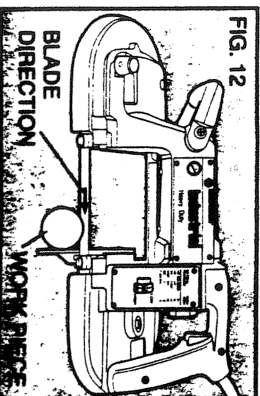
To adjust the workstop, loosen the two screws shown in Figure 11 and position the workstop as desired. Tighten the two screws firmly.

**NEVER USE YOUR SAW WITHOUT THE WORKSTOP.**



## Operation

1. Mount the material to be cut solidly in a vise or other clamping device.
2. Turn the saw "ON" before lowering blade onto work. This will help prevent tooth breakage. Always start cutting with the work piece back against the work stop (Figure 12). Normally, blade direction and cutting force will keep the work against the work stop where it belongs. Align the edge of the motor housing with the back (non-toothed) edge of the blade to assure a straight cut. SEE FIG. 13.



3. Watch the blade while cutting so that you can guide the Saw to cut straight. Any twisting or cocking of the blade in the cut increases the risk of blade damage.
4. The tool's own weight provides the most efficient downward cutting pressure. Added operator pressure slows the blade and reduces blade life.
5. End pieces, which would be heavy enough to cause injury when they drop, after cut-off, should be supported. Safety shoes are strongly recommended.
6. Hold both handles firmly so that the saw does not fall against clamped or supported material when the cut is completed. **DON'T MAKE ANY SPEED CHANGES UNLESS TOOL HAS BEEN TURNED OFF.**

## Tips for Better Cutting

The following recommendations should be used as a guide. Results may vary with the operator and the particular material being cut.

1. **AT LEAST TWO TEETH OF THE SELECTED BLADE SHOULD ALWAYS BE ENGAGED IN THE MATERIAL (FIGURE 14).** Otherwise, the moving teeth will tend to grab the material causing tooth breakage and possible blade failure. Thin materials will require fine pitch blades (more teeth per inch).
2. Softer materials require coarser pitch blades (fewer teeth per inch).

4. Remove the blade from the pulleys first and then the blade guides. **SAW BLADES ARE SHARP. USE CARE IN HANDLING THEM.**

5. Inspect the blade guides, shown in Figure 5 and remove any large chips which may be lodged in them. Lodged chips can prevent rotation of the roller guides and cause flat spots on the rollers.

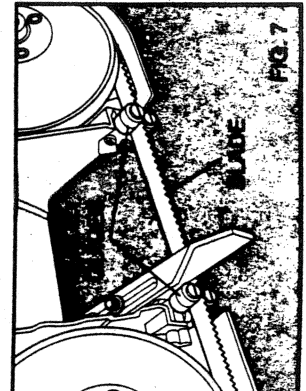
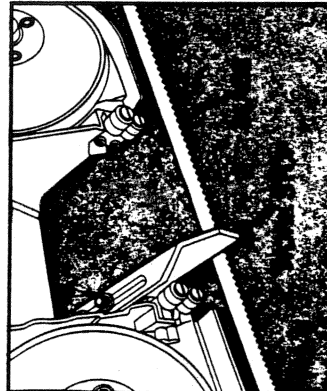


6. Wipe any chips from the rubber tires on the pulleys. This will extend tire life and keep the blade from slipping.

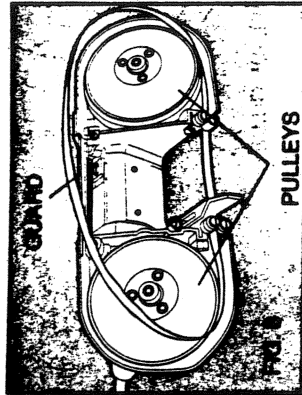
7. Install the new blade as follows:

A. Position the blade so that the teeth are on the bottom and angled toward the Work Stop, as shown in Figure 6.

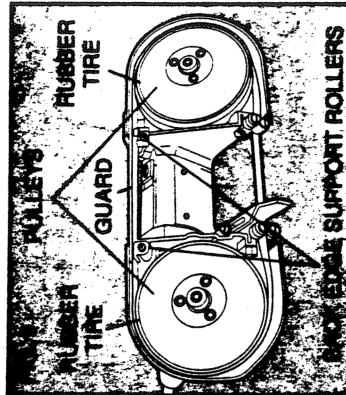
B. Slip the blade into the blade guides, as shown in Figure 7.



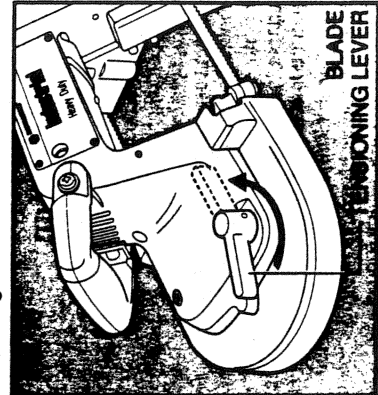
C. Holding the blade in the guides, place it around both pulleys and through the guard, as shown in Figure 8.



D. Make sure that the blade is fully inserted into the blade guides (against the back edge support rollers shown in Figure 9), and positioned squarely against the rubber tires.



E. Gently turn the saw over so that the pulleys rest on your work surface and rotate the Blade Tensioning Lever counterclockwise until it stops, as shown in Figure 10.



## Caution:

"When being used on job sites where arc or resistance welding is being performed, the cord set on this tool could be damaged by heavy welding currents using the cord as a parallel return path. To maintain the protection the ground wire provides, the cord should be inspected frequently and replaced as necessary. Avoid unnecessary contact between the metallic exterior of the tool and grounded conductive surfaces."

## Extension Cords

Tools that have 3 wire cords requiring grounding must only be used with extension cords that have 3-prong grounding type plugs and 3-pole receptacles. Only round jacketed extension cords should be used, and we recommend that they be listed by Underwriter's Laboratories (U.L.) (C.S.A. in Canada). If the extension will be used outside, the cord must be suitable for outdoor use. Any cord marked as outdoor can also be used for indoor work. The letters "WA" on the cord jacket indicate that the cord is suitable for outdoor use.

An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety, and to prevent loss of power and overheating. The smaller the gauge number of the wire, the greater the capacity of the cable, that is, 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size.

To determine the minimum wire size required, refer to the chart below:

CHART FOR MINIMUM WIRE SIZE (AWG) OF EXTENSION CORDS

NAMEPLATE RATING-AMPS	25	50	75	100	125	150	175	200
0 - 10.0	18	18	16	16	14	14	12	12
10.1 - 13.0	16	16	14	14	14	12	12	12
13.1 - 15.0	14	14	12	12	12	12	12	----

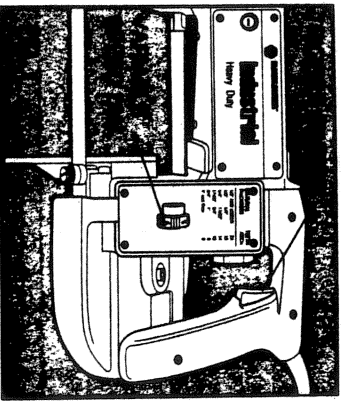
Before using an extension cord, inspect it for loose or damaged wires, damaged insulation, and defective fittings. Make any needed repairs or replace the cord if necessary. Black & Decker has extension cords available that are U.L. (C.S.A. in Canada) listed for outdoor use.

## Starting the Saw (3125 Only)

Your 3125 Portable Band Saw is equipped with a variable speed switch for even greater versatility.

Turn the speed dial, shown in Figure 1, up for lower speeds and down for higher ones.

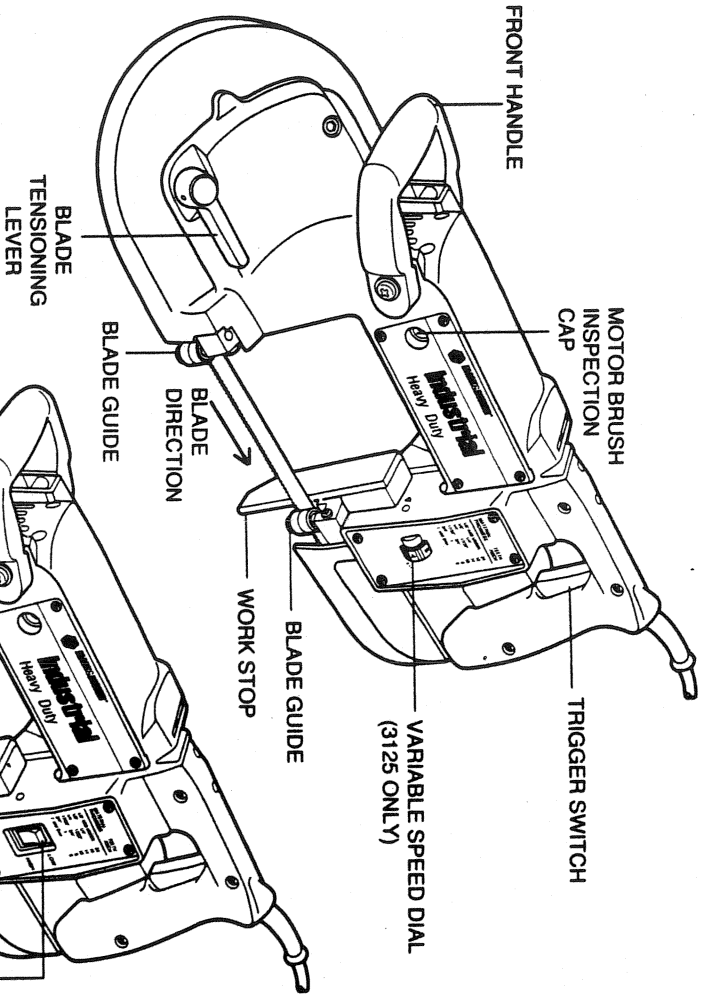
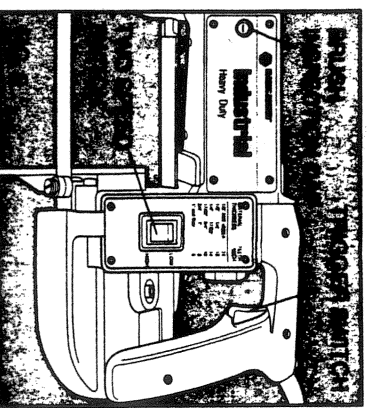
To turn the tool "ON", squeeze the trigger switch, shown in Figure 1. To turn the tool "OFF", release the trigger switch. Always turn the saw OFF before moving the speed dial. See page 7 "TOOL SPEED AND BLADE SELECTION CHART" for additional information.



## Starting the Saw (3127 Only)

Your 3127 Portable Band Saw has a two speed switch that allows you to select either high speed or low speed depending upon the job you will be performing. The chart below tells you which speed is best for various materials. To select high speed, turn off the saw and push the switch toward "high" and for low speed, push the switch to "low".

To turn the saw "ON", squeeze the trigger switch shown in Figure 2. To turn the tool "OFF", release the trigger switch.



## Speed Selection

When cutting Copper, Brass, Bronze, Aluminum, Plastic Pipe, Cast Iron, Angle Iron, and Mild Steel, use High Speed. Rotate the Speed Dial to position number 5 when using the 3125 saw, and switch to the "High" position if you are using the 3127.

When cutting tougher steels, Chrome Steel, Tungsten Steel and other problem materials, use low speed. Rotate the Speed Dial to position number 4 when using the 3125 saw, and switch to the "Low" position if you are using the 3127.

Speed settings 1, 2, & 3 (3125 only) are for starting cuts or cutting very soft material.

## Blades

The Portable Band Saw uses only blades that are .020" thick, 1/2" wide and 44-7/8" long. **CAUTION:** The use of any other blade or accessory might be hazardous. **DO NOT** use any other type

## Blade Selection

of accessory (other than the correct size blade) with your Band Saw. Blades used on stationary band saws are of different thickness. Do not attempt to use them on your portable unit.

Blades recommended for cutting different materials with your saw are listed in this manual.

In general, first consider the size and shape of the work, and the type of material to be cut. Remember, for the most efficient cutting, the coarsest-tooth blade possible should be used in a given application, because the coarser the tooth, the faster the cut. And, as a rule of thumb, soft materials usually require coarse-tooth blades, while hard materials require fine-tooth blades.

For thick materials, coarse-tooth blades work best because the large gullets allow room for the long chips.

You'll avoid the chip-welding that fine-tooth blades cause when the material is too thick.

For thin materials or sections, at least two teeth should be in the cut. So use fine tooth blades in these applications - such as tubing, pipe, thin flat stock, extrusions with thin webs.

Where a smoother finish is important, select one of the finer-tooth blades.

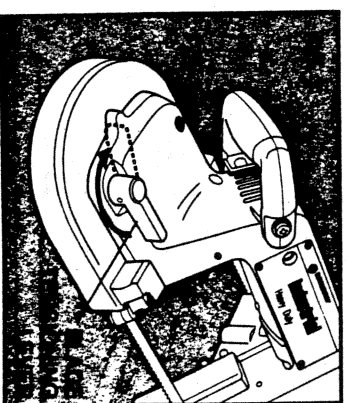
## TOOL SPEED AND BLADE SELECTION CHART

Material thickness or wall thickness	Copper, Brass, Bronze, Aluminum, Plastic, Pipe, Cast Iron, Mild Steel, Angle Iron	Tougher Steels, Chrome & Tungsten Steel, Other Problem Materials
5/16" and larger	10 tooth blade Use High Speed*	10 tooth blade Use Low Speed
5/32" to 1/2"	14 tooth blade Use High Speed	14 tooth blade Use Low Speed
1/8" to 3/8"	18 tooth blade Use High Speed	18 tooth blade Use Low Speed
3/32" to 3/16"	24 tooth blade Use High Speed	24 tooth blade Use Low Speed

\* When using the 3125 Variable Speed Saw, select number 4 on the Speed Dial for low speed. Select number 5 for high speed.

## Changing Blades

1. Turn off and unplug the saw.
2. Rotate the Blade Tensioning Lever clockwise until it stops, as shown in Figure 3.



3. Turn the saw over and place it on a workbench or table with the cord to the left, as shown in Figure 4.

