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DWM120

FIG. 1

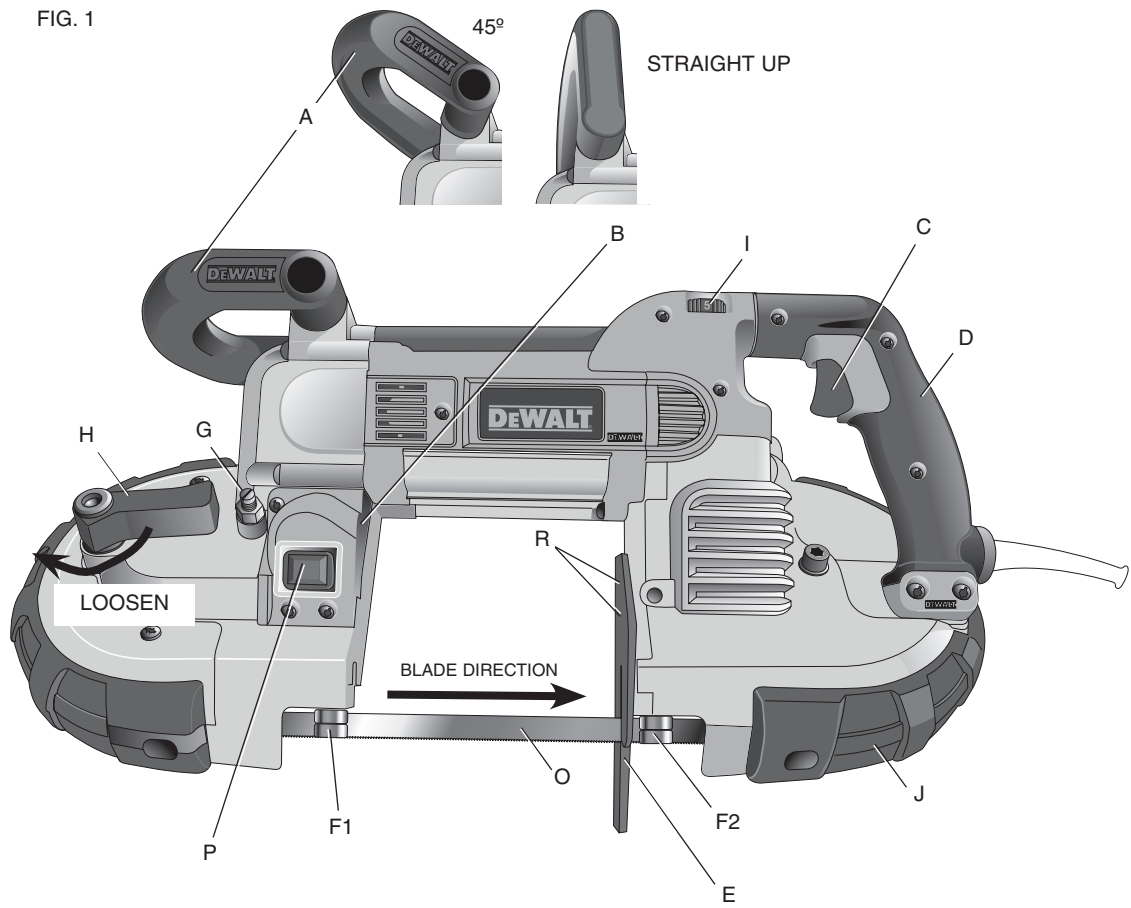


FIG. 2

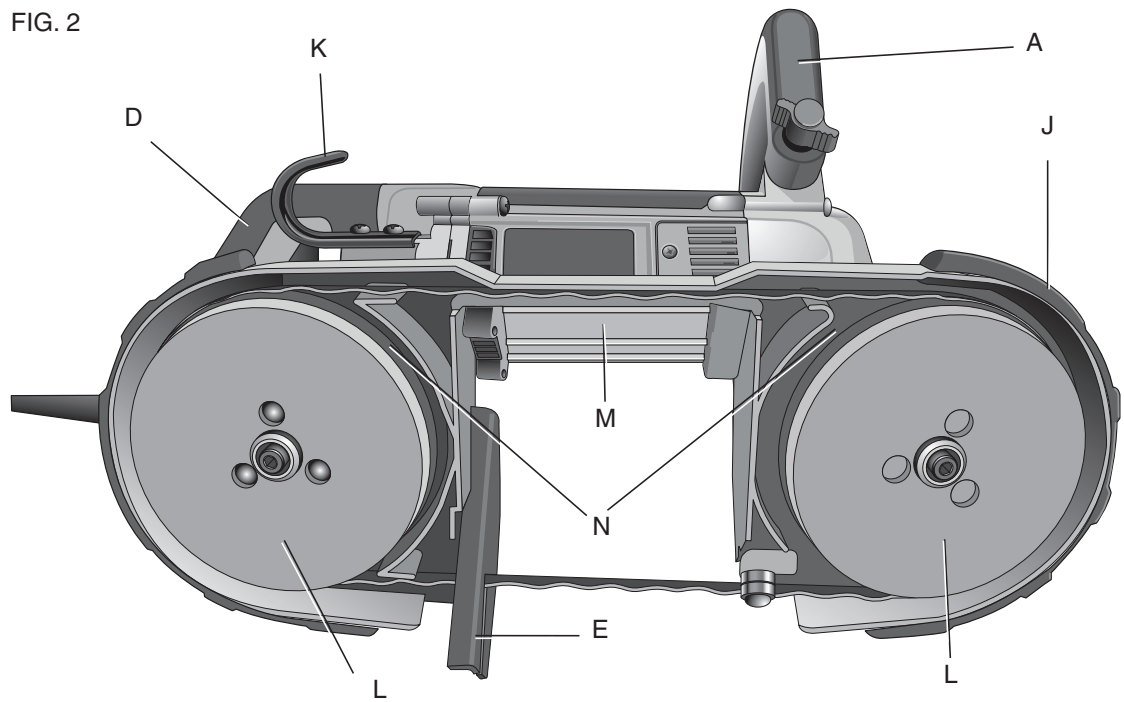
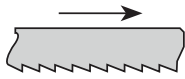


FIG. 3

BLADE DIRECTION



POSITION OF TEETH ON LEFT SIDE OF MACHINE

FIG 4

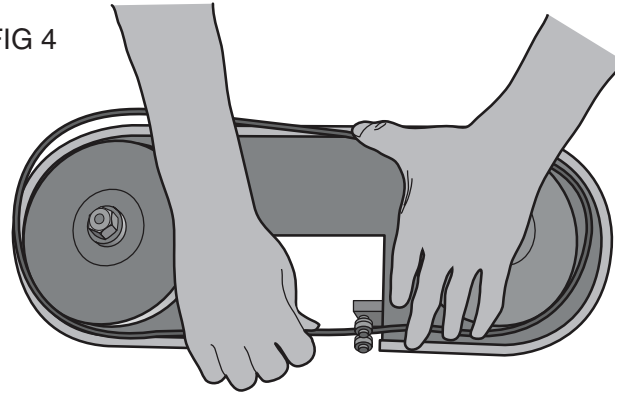


FIG. 5

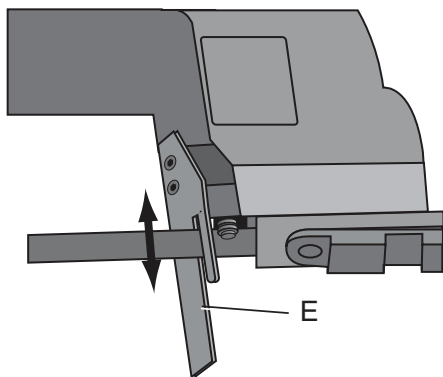


FIG. 6

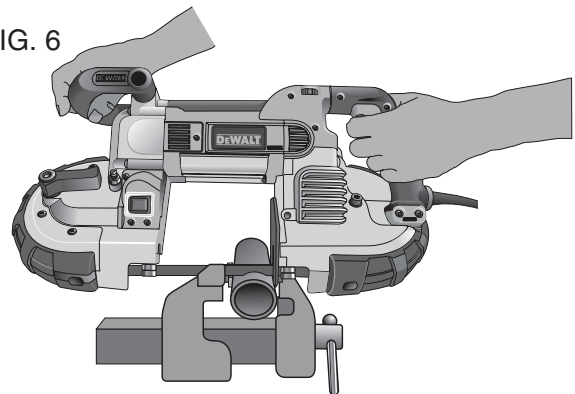


FIG. 7 RECOMMENDED CUTTING POSITIONS

YES 	NO 	YES 	NO
YES 	NO 	YES 	NO
YES 	NO 	YES 	NO

BAND SAW

DWM120

Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

Technical Data

DWM120		
Motot Type	protected type, series commutator motor	
Voltage	V _{AC}	110
Power input	W	1200
power source	Hz	60
Full-load current	A	10
Band saw blade-Peripheral speed	m/min	30-106
Band saw blade-Dimensions	mm	12.5*1140*0.5
Max cutting dimensions-Stock	mm	127*120.7
Max cutting dimensions-Pipe outer dimensions	mm	120.7
Net weight	kg	6.8
Cord	m	2.4



WARNING: To reduce the risk of injury, read the instruction manual.

General Power 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

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) WORK AREA SAFETY

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) ELECTRICAL SAFETY

- 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.
- 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 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.

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

3) PERSONAL SAFETY

- 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.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- 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 energising power tools that have the switch on invites accidents.
- 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.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 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.

4) POWER TOOL USE AND CARE

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

5) SERVICE

- 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.

Additional Safety Rules – Portable Band Saws

- **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessories contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- **Keep hands away from cutting area and blade.** Keep one hand on the main handle and the other hand on the front handle to prevent loss of control which could result in personal injury.
- Always make sure the portable band saw is clean before using.
- Always cease operation at once if you notice any abnormality whatsoever.
- Always be sure all components are mounted properly and securely before using tool.
- Always handle the band saw blade with care when mounting or removing it.
- Always keep your hands out of the line of the band saw blade.
- Always wait until the motor has reached full speed before starting a cut.
- Always keep handles dry, clean, and free of oil and grease. Hold the tool firmly when in use.
- Always be alert at all times, especially during repetitive, monotonous operations. Always be sure of position of your hands relative to the blade.
- Never remove work stop.
- Stay clear of end pieces that may fall after cutting off. They may be hot, sharp and/or heavy. Serious personal injury may result.

Using an Extension Cable

If an extension cable is required, use an approved 3-core extension cable suitable for the power input of this tool (see **Technical Data**). The minimum conductor size is 1.5 mm²; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.

- ⚠ **WARNING: ALWAYS** use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. **ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:**
- **Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.
- The label on your tool may include the following symbols. The symbols and their definitions are as follows:

- V.....volts
- A.....amperes
- Hzhertz
- Wwatts
- min.....minutes
- ~alternating current
- ==direct current
- ~alternating or direct current
- no.....no load speed
- ⊕earthing terminal
- ⚠Class I Construction (grounded)
-Class II Construction (double insulated)
- ⚠safety alert symbol
- BPM.....beats per minute
- .../minper minute
- RPMrevolutions per minute
- SFPMsurface feet per minute

SAVE THESE INSTRUCTIONS FOR FUTURE USE COMPONENTS(FIG. 1,2)

- A. Multi-position bail handle
- B. Sight light
- C. Trigger switch
- D. Main handle
- E. Work stop
- F. Guide rollers
- G. Blade tracking adjustment
- H. Blade tension lever
- I. Speed wheel
- J. Rubber bumpers
- K. Hang hook
- L. Pulley
- M. Blade guard
- N. Rubber tires
- O. Blade
- P. Sight light switch

ASSEMBLY

Blades

This portable band saw is setup for use with .020" (0.5 mm) thick, 1/2" (12.5 mm) wide and 44-7/8" (1140 mm) long blades. **DO NOT** use .025 (.64 mm) thick blades.

⚠ **CAUTION:** The use of any other blade or accessory might be hazardous. **DO NOT** use any other type of accessory with your band saw. Blades used on stationary band saws are of different thickness. Do not attempt to use them on your portable unit.

Blade Selection

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. In selecting the appropriate number of teeth per inch of the band saw blade, at least two teeth should contact the work surface when the blade is rested against the workpiece. As a rule of thumb, soft materials usually require coarse tooth blades, while hard materials require fine tooth blades. Where a smoother finish is important, select one of the finer tooth blades.

Select the appropriate band saw blade according to the material type, dimensions, and number of teeth. See **Blade Description** chart.

The following table is intended as a general guide only. Determine the type of material and dimension of the workpiece and select the most appropriate band saw blade.

CAUTION: Never use the band saw to cut resin materials which are subject to melting. Melting of resin material caused by high heat generated during cutting may cause the band saw blade to become bound to the material, possibly resulting in overload and burn-out of the motor.

BLADE DESCRIPTION						
Type of band saw blade	Bi-Metal					
Number of teeth	24	18	14	10	14/18	10/14
Workpiece thickness						
1/8" (3.2 mm) and under	•	•				
1/8" - 1/4" (3.2 mm - 6.4 mm)			•		•	
1/4" - 13/32" (6.4 mm - 10.3 mm)				•		•
13/32" (10.3 mm) and over					•	

Blade Speed

Your DWM120 portable band saw is equipped with variable speed for greater versatility. Turn the speed wheel (I) to select the desired speed (Fig. 1). Speed 1 is the slowest speed; Speed 5 is the fastest. Use speed settings 1-5 when connected to an AC power supply.

When cutting copper, brass, bronze, aluminum, cast iron, angle iron, and mild steel, use a higher speed. When cutting plastic pipe, tougher steels, chrome steel, tungsten steel, stainless steel, and other problem materials, use low speed.

NOTE: When cutting plastic pipe, higher speeds may melt plastic.

Blade Tracking

- ⚠ WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

Your band saw is equipped with an adjustable blade tracking mechanism which assures proper blade tracking at all times. The back edge of a properly aligned blade will run lightly against one or both of the back up rollers in the blade guides. (The pressure between the edge of the blade and the roller will be very slight and will not damage either the blade or the roller.)

TO ADJUST THE BLADE TRACKING

1. Use a 1/2" (13 mm) wrench to loosen the adjustment locking nut (G), shown in Figure 1 by turning it one or two turns counterclockwise.
2. Use a screwdriver to turn the tracking screw 1/4 turn. Turning the screw clockwise will move the blade up toward the blade guide rollers. Turning the screw counterclockwise will move the blade down away from the rollers.
3. Adjust so that the back edge of the blade lightly touches the rollers then securely tighten the locking nut. (It will be necessary to plug the saw in and run it to observe the tracking.)
4. Observe blade tracking between runs and repeat Steps 1–4 as necessary to achieve proper blade tracking.

Removing and Installing Blades

- ⚠ WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

- ⚠ CAUTION: Cut Hazard.** Blade tension lever is under spring pressure. Maintain control of lever when releasing blade tension.

TO REMOVE BLADE (FIG. 1, 2)

1. Rotate the blade tension lever (H) clockwise until it stops to release tension in blade.
2. Turn the saw over and place it on a workbench or table with the cord to the left.
3. Begin removing the blade at the blade guard (M) and continue around the pulleys (L). When removing the blade, tension may be released and the blade may spring free. **SAW BLADES ARE SHARP. USE CARE IN HANDLING THEM.**
4. Inspect the guide rollers (F1, F2) and remove any large chips which may be lodged in them. Lodged chips can prevent rotation of the guide rollers and cause flat spots on the guide rollers.
5. Rubber tires (N) are mounted on the pulleys (L). The rubber tires should be inspected for looseness or damage when changing the blade. Wipe any chips from the rubber tires on the pulleys. This will extend tire life and keep the blade from slipping. If any looseness or damage occurs, the tool should be brought to an authorized DEWALT service center for repair or replacement as soon as possible. Continued use of the tool with loose or damaged rubber tires will cause unstable travel of the band saw blade.

TO INSTALL BLADE (FIG. 1, 3–5)

1. Position the blade so that the teeth are on the bottom and angled toward the work stop, as shown in Figures 1 and 3.
2. Slip the blade into the guide rollers, as shown in Figure 4.
3. Holding the blade in the guide rollers, place it around both pulleys (L) and through the work stop (E), as shown in Figure 5.
4. Make sure that the blade is fully inserted into the guide rollers and positioned squarely against the rubber tires.
5. Rotate the blade tension lever (H) counterclockwise until it stops and then gently turn the saw over so that the pulleys rest on your work bench or table and. Make sure the teeth face away from the bandsaw (Fig. 1, 3).
6. Turn the speed wheel to low speed (1) and then turn the saw on and off a few times to ensure that the blade is seated properly.

Multi-position Bail Handle (Fig. 1)

A bail handle is provided for carrying the tool and for use as an additional handle. Assemble the bail handle in one of the multi-positions (forward, 45° or straight up) shown in Figure 1. When adjusting the bail handle from one position to the other, loosen the bail handle knob and move the handle to one of the three positions and tighten knob.

Adjustments

- ⚠ WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

WORK STOP ADJUSTMENT

To support large workpieces, the work stop should be lowered following these steps:

1. Loosen the two screws (R), shown in Figure 1, with the hex wrench provided.
2. Move the work stop (E) to the desired position (Fig 5).
3. Securely tighten screws (R).

OPERATION

Motor

Be sure your power supply agrees with the voltage marked on the nameplate. 110 Volts AC 60 Hz means alternating current only. Voltage decrease of more than 10% will cause loss of power and over heating. All DEWALT 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. There are certain applications for which this tool was designed.

This band saw is designed to cut various types of material up to 4-3/4" (120.7 mm) diameter or 5" (127 mm) x 4-3/4" (120.7 mm) rectangular shape at 90°.

- ⚠ WARNING:** Thoroughly remove any oil or grease from the workpiece before securing in a vise or other clamping device. If the workpiece is not secure, it may come loose during the cutting and/or cause breakage, which may result in serious personal injury.
- ⚠ WARNING:** Never connect the power tool unless the available AC power is of the same voltage as that specified on the nameplate of the tool. Never connect this power tool to a DC power source.
- ⚠ WARNING:** Laceration Hazard. If the power cord is connected to the power source with the trigger switch turned ON the power tool will start suddenly and could cause a serious accident.

Trigger Switch

To start the tool, squeeze the trigger switch (C). To turn the tool off, release the switch.

Cutting

- ⚠ WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

Refer to Figure 7 for recommended cutting positions for various materials.

NOTE: Select and use a band saw blade that is most appropriate for the material being cut.

See **BLADE DESCRIPTION**.

This portable band saw may be hung using the hang hook (K). Hang tool on a pipe vice or other suitable, stable structure. (Fig. 2)

1. Mount the material to be cut solidly in a vise or other clamping device.

- ⚠ WARNING:** Never attempt to use this tool by resting it upside down on a work surface and bringing the material to the tool. Always securely clamp the workpiece and bring the tool to the workpiece, securely holding the tool with two hands as shown in Figure 6.
2. If additional light is needed, a sight light (B) can be activated using the sight light switch (P) as shown in Figure 1. If replacement is required, return to an authorized service center or other qualified service personnel, always using identical replacement parts.
- ⚠ WARNING:** To reduce the risk of electric shock, **DO NOT** use the tool if LED lens is broken.
3. Bring the work stop (E) into contact with the workpiece. Turn the saw ON.
4. When saw reaches desired rotation speed, slowly and gently tilt the main body of the tool to bring the band saw blade into contact with the workpiece. Do not apply additional pressure in excess of the weight of the main body of the tool. Carefully avoid bringing the band saw blade suddenly and heavily into contact with the upper surface of the workpiece. This will cause serious damage to the band saw blade. To obtain maximum service life of the band saw blade, ensure there is no sudden impact at the beginning of the cutting operation.
5. As shown in Figure 6, straight cutting can be accomplished by keeping the band saw blade aligned with the side surface of the motor housing. Any twisting or cocking of the blade will cause the cut to go offline and decrease the life of the blade.
- CAUTION:** During cutting, if the band saw becomes locked or jammed in the workpiece material, release the switch immediately to avoid damage to the band saw blade and motor.
6. The tool's own weight provides the most efficient downward cutting pressure. Added operator pressure slows the blade and reduces blade life.
7. End pieces, which would be heavy enough to cause injury when they drop, after cut-off, should be supported. Safety shoes are strongly recommended. End pieces may be hot.
8. Hold the saw firmly in both hands so that the saw does not fall against clamped or supported material when the cut is completed. **DO NOT 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.

- Never twist the band saw blade during cutting operation.
- Never use liquid coolants with portable band saws. Use of liquid coolants will cause build-up on tires and reduce performance.
- If excessive vibration occurs during the cut, turn the bandsaw off and adjust the speed slightly. Ensure that the material being cut is securely clamped down. If vibration continues, change the band saw blade.

MAINTENANCE

- ⚠ WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

Lubrication

Self-lubricating bearings are used in the tool and periodic relubrication is not required. In the unlikely event that service is ever needed, take your tool to an authorized service location.

Cleaning

- ⚠ WARNING:** Blow dirt and dust out of all air vents with dry air at least once a week.
- ⚠ WARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Repairs

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustments (including brush inspection and replacement) should be performed by a DEWALT factory service center, a DEWALT authorized service center or other qualified service personnel. Always use identical replacement parts.

ACCESSORIES

- ⚠ WARNING:** Since accessories, other than those offered by DEWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DEWALT, recommended accessories should be used with this product. Recommended accessories for use with your tool are available at extra cost from your local dealer or authorized service center.

