

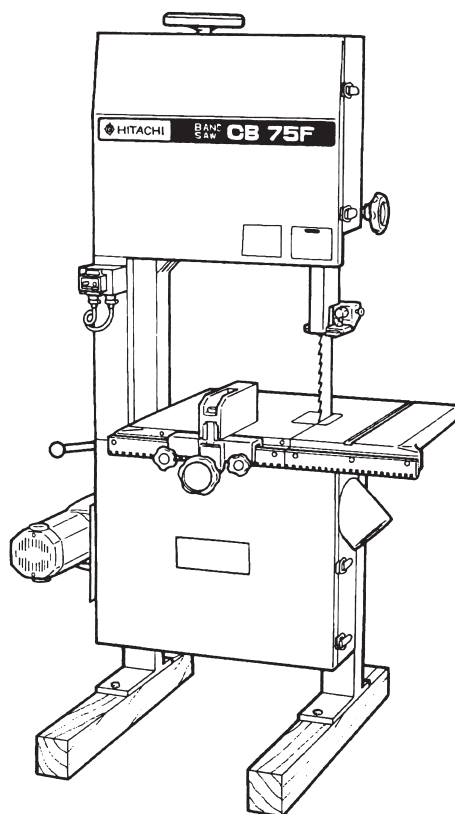
HITACHI

BAND SAW

MODEL CB 75F

MODEL CB 75FA

INSTRUCTION MANUAL



IMPORTANT :

For your own safety read this INSTRUCTION MANUAL before operating the POWER TOOL.

Keep this INSTRUCTION MANUAL available for convenient reference when using the POWER TOOL.

IMPORTANT INFORMATION

Read and understand all of the operating instructions, safety precautions and warnings in the Instruction Manual before operating or maintaining this power tool.

Most accidents that result from tool operation and maintenance are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.

Basic safety precautions are outlined in the "SAFETY" section of this Instruction Manual and in the sections which contain the operation and maintenance instructions.


Hazards that must be avoided to prevent bodily injury or machine damage are identified by WARNINGS on the tool and in this Instruction Manual.

Never use this tool in a manner that has not been specifically recommended by HITACHI, unless you first confirm that the planned use will be safe for you and others.

SAFETY

SAFETY RULES FOR POWER TOOLS

READ ALL OF THE WARNINGS AND OPERATING INSTRUCTIONS IN THIS INSTRUCTION MANUAL BEFORE OPERATING OR MAINTAINING THIS TOOL:

 **WARNING :** When using this electric tool, take all necessary precautions to minimize the risk of electric shock or other personal injury.
In particular, always comply with the following safety rules:

1. **ALWAYS KEEP GUARDS IN PLACE** and in working order.
2. **ALWAYS REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING TOOL.**
Always confirm that all keys and adjusting wrenches have been removed from the tool before it is turned on.
3. **ALWAYS KEEP WORK AREA CLEAN.** Avoid injuries by not cluttering the work areas and work benches.
4. **NEVER USE THE TOOL IN HAZARDOUS ENVIRONMENTS.** Never use power tools in damp or wet places, and never expose them to rain. Always keep the work area well lighted.
5. **NEVER PERMIT CHILDREN OR OTHER PEOPLE TO LOITER NEAR THE WORK AREA.**
Keep all people (especially children), away from the work area. Always unplug unattended tools and keep the work place tamper-proof by installing locks on the doors and on the master switches. Always remove the lock-of button from the tool, and store it in a secure place, when the tool is not in use.
6. **NEVER FORCE THE TOOL.** It will do the job better and more safely if it is operated at the rate for which it was designed.
7. **ALWAYS USE THE RIGHT TOOLS.** Never force a tool or an attachment to do a job for which it was not designed.
8. **ALWAYS WEAR PROPER APPAREL WHEN WORKING WITH THE TOOL.** Never wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in the moving parts. Always wear non-slip footwear, preferably with steel toes. Wear protective hair covering to contain long hair.
9. **ALWAYS USE EYE PROTECTION WHEN WORKING WITH THE TOOL, TO PREVENT EYE INJURY.** Ordinary eyeglasses do not provide adequate protection, since the lenses are not made of safety glass. Also, use a face mask for additional safety, and wear a dust mask if the cutting operation produces dust.
10. **NEVER OVERREACH.** Always keep proper footing and balance when working with the tool.
11. **ALWAYS MAINTAIN TOOLS WITH CARE.** Always keep tools sharp and clean for best and safest performance. Always follow instructions for lubricating the tool and for changing accessories.
12. **ALWAYS DISCONNECT THE TOOL** before servicing and before changing blades or other accessories.

13. **NEVER RISK UNINTENTIONAL STARTING WHEN PLUGGING IN THE TOOL.**
Always confirm that the switch is in the "OFF" position before inserting the power plug into the receptacle.
14. **ALWAYS USE RECOMMENDED ACCESSORIES ONLY, WHEN OPERATING THIS TOOL.**
Consult this Instruction Manual for descriptions of recommended accessories. To avoid personal injuries, use only recommended accessories in conjunction with this tool.
15. **NEVER STAND ON THE TOOL.** Prevent serious injury by not tipping the tool and by not risking unintentional contact with the saw blade
16. **ALWAYS CHECK FOR DAMAGED PARTS BEFORE USING THE TOOL.** Always check the guard and all other components for damage before using the tool, to assure that they will function properly. Check all moving parts for proper alignment, freedom from binding and other conditions that might affect proper operation. Always repair or replace any damaged guards or other damaged components before using the tool.
17. **ALWAYS CONFIRM THE DIRECTION OF ROTATION OF THE BLADE BEFORE USING THE TOOL.**
18. **NEVER LEAVE THE TOOL RUNNING WHILE UNATTENDED; ALWAYS TURN THE POWER OFF WHEN THE TOOL IS NOT IN USE.** Always unplug the power cord when the tool is not in use.
19. This tool was not designed to be used for mass-production applications, and should not be used in mass-production environments.
20. When servicing this tool, use only authorized replacement parts.
21. Apply 115 volts AC only to this tool. Applying the wrong voltage or applying DC power could cause the POWER TOOL to operate improperly and could cause serious personal injury or damage to the tool.

Specific Safety Rules for Use of this Power Tool

 **WARNING :** The following specific operating instructions must be observed when using this POWER TOOL, to avoid injury:

DO's

ALWAYS OBSERVE THE FOLLOWING RULES, TO ASSURE SAFE USE OF THIS TOOL:

1. Review this Instruction Manual and familiarize yourself with the safety rules and operating instructions for this POWER TOOL, before attempting to use it.
2. Always confirm that the POWER TOOL is clean, before using it.
3. Always wear snug-fitting clothing, non-skid footwear (preferably with steel toes) and eye protection, when operating the POWER TOOL.
4. Always handle the POWER TOOL carefully. If the POWER TOOL is dropped or struck against a hard object, it might become deformed or cracked or sustain other damage.
5. Always cease operating the tool at once, if you notice any abnormality whatsoever.
6. Always confirm that all components are mounted properly and securely, before using the tool.
7. Always shut off the power and wait for the band saw blade to completely stop rotating, before undertaking any maintenance or adjustments.
8. Always make a trial run first, before attempting any new use of the tool.
9. Always handle the band saw blade with care, when dismounting and mounting it.
10. Always confirm that the workpiece is free of nails or other foreign objects, before beginning a cut.
11. Always keep your hands out of the path of the band saw blade.
12. Always confirm that the safety covers are in the proper places, before using the tool.
13. Inspect the tool power cords periodically.
14. Always confirm that the proper lengths and types of extension cords are being utilized, when / if needed, before starting the tool.

15. Always confirm that the motor air vents are fully open, before using the tool.
16. Always wait until the motor has reached full speed, before starting a cut.
17. Coasting Cutting Tool Can Be Dangerous-Apply brake immediately to stop cutting tool when the switch is turned off.

The torque developed during braking may loosen the saw wheel-retaining nut, and that nut should be checked periodically and tightened if necessary, especially after braking.

DON'Ts

NEVER VIOLATE THE FOLLOWING RULES, TO ASSURE SAFE USE THIS TOOL:

1. Never operate the POWER TOOL unless you fully understand the operating instructions contained in this Instruction Manual.
2. Never leave the POWER TOOL unattended, without first unplugging the power cord.
3. Never operate the POWER TOOL when you are tired, or after you have taken any medications or have consumed any alcoholic beverages.
4. Never use the POWER TOOL for applications not specified in the Instruction Manual.
5. Never operate the tool while wearing loose clothing, a necktie or jewelry, or while your hair is uncovered, to protect against getting caught in the moving machinery.
6. Never touch any moving parts, including the blade, while the tool is in use.
7. Never reach around the saw blade.
8. Never remove any safety devices or blade guards; use of the tool without them would be hazardous.
9. Never abuse the power cord of the tool.
10. Never use the POWER TOOL if the starting switch doesn't turn on and off properly.
11. Never use the POWER TOOL near flammable liquids or gases, since sparking could cause an explosion.
12. Never clean plastic components with solvents, since the plastic may dissolve.
13. Never operate the tool unless all of the blade guards are in place.

WARNING

For Your Own Safety Read This Instruction Manual Before Operating Saw.

1. Wear eye protection.
2. Do not remove jammed cutoff pieces until blade has stopped.
3. 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.

SAVE THESE INSTRUCTIONS

MEANINGS OF SIGNAL WORDS

WARNING indicates a potentially hazardous situation which, if ignored, could result in serious personal injury.

CAUTION indicates a hazardous situation which, if ignored, could result in moderate personal injury, or could cause machine damage.

NOTE emphasizes essential information.

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FOREWORD

The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the POWER TOOL. Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own POWER TOOL. Also, in some illustrations the guards and covers intentionally have not been shown for illustrative purposes only.

PART NAMES

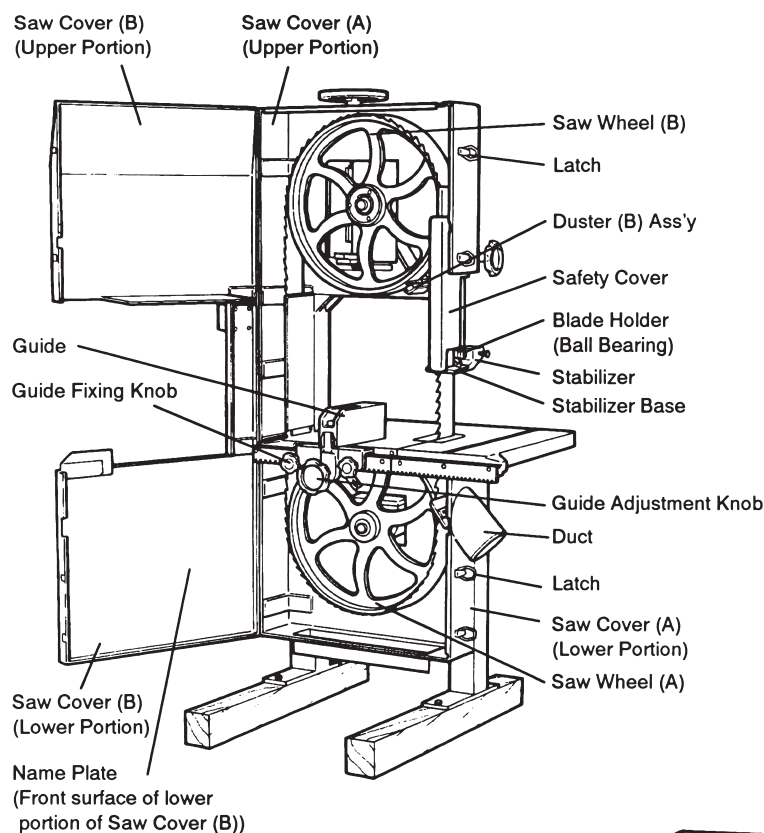


Fig. 1 - a

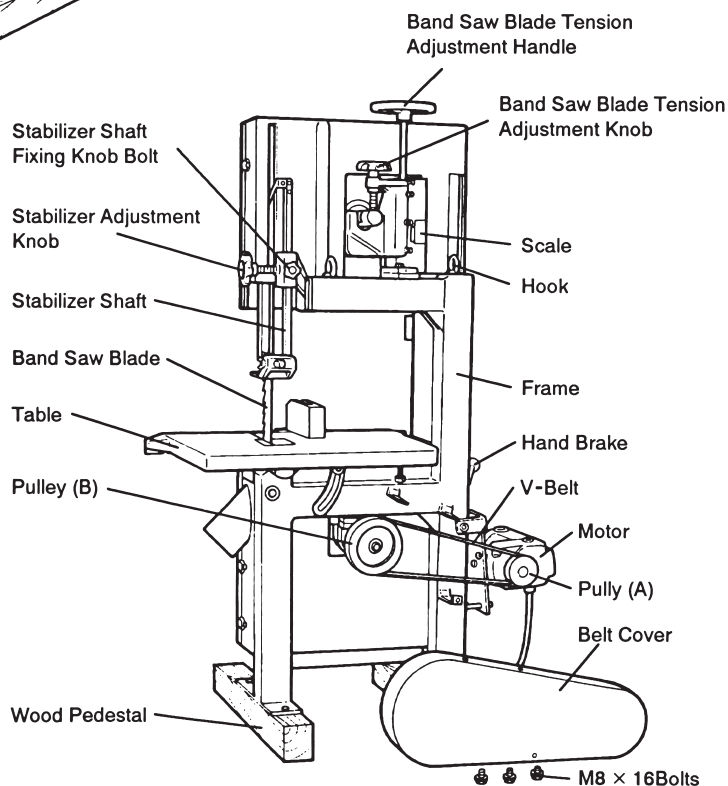


Fig. 1 - b

SPECIFICATIONS

Item	Model CB75F, CB75FA		
Motor	Type	AC Single phase commutator motor	Hitachi dripproof type 4 pole motor (1.5kw)
	Power source	AC Single phase 50/60Hz	AC Three phase 50/60Hz
	Single phase	Voltage	115 Volts
		Full-load current	15.0Amp
	Three phase	Voltage	230 Volts
		Full-load current	5.8/5.2 Amp
Capacity	Max. cutting height	11.8"(300mm)	
	Max. cutting width (When guide is used)	10.24"(260mm)	
Band saw blade dimension		Width 2.95"(75mm) × Thickness 0.026"(0.65mm) × Length 111.18"(2824mm)	
Saw wheel diameter		16.14"(410mm)	
No-load speed of saw wheel		900rpm	720/860rpm (50/60Hz)
Size of table		Width 20.67"(525mm) × Depth 19.29"(490mm)	
Tilting angle of table		0° ~ 45°	
Table height		27.56"(700mm)	
Belt		V-Belt type A41 (2 stages)	V-Belt type A43 (2 stages)
Machine dimensions		Width 36.85"(936mm) × Depth 29.13"(740mm) × Height 60.35"(1533mm)	
Installation dimensions		Width 17.52"(445mm) × Depth 11.22"(285mm)	
Weight	309lbs. (140kg) (CB75F)		331lbs. (150kg) (CB75F)
	320lbs. (145kg) (CB75FA)		342lbs. (155kg) (CB75FA)
Cord	Three conductor type cabtire cable		Four conductor type cabtire cable
	Length 16.4ft. (5m)		Length 16.4ft. (5m)
Others	Model CB75FA is equipped with the material cutting width display pannel		

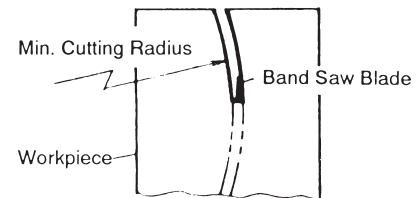
APPLICATIONS

- Cutting of various wood materials.
- Cutting of tenons and various fixtures ; tilt (angle) cutting operations.
- Curve cutting through use of various narrow-width band saw blades.

The table below lists the minimum cutting radius capability of selected narrow-width band saw blades.

Select the appropriate band saw blade in accordance with the desired minimum cutting radius.

Type	Saw blade width	Code No.	Min cutting radius (See Note)
Band saw blade (C)	0.98" (25mm)	967712	9.45" (240mm)
Band saw blade (E)	0.49" (12.5mm)	967990	4.33" (110mm)
Band saw blade (F)	0.36" (9.25mm)	967991	1.97" (50mm)
Band saw blade (G)	0.24" (6mm)	967992	1.57" (40mm)



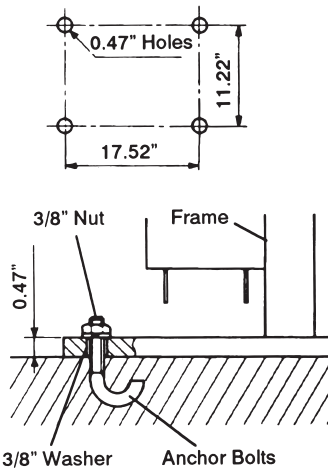
NOTE : The minimum cutting radius is dependent on the height of the workpiece. As the height of the workpiece increases, the minimum cutting radius becomes larger. The table above is based on a workpiece height of 1.18" (30mm).

PREPARATION BEFORE OPERATION

Make the following preparations before operating the power tool:

1. Installation.

(1) Install the machine on a flat, firm surface, and ensure it is securely stabilized.



(2) Fix the machine with anchor bolts as shown in Fig. 4.

Fig. 4

2. Grounding Instructions.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

(1) Single-phase models.

This power tool is equipped with an electric cord having an equipment-grounding conductor and a plug with a grounding pin, as shown in Fig. 5. The plug must be plugged into a matching receptacle that is properly installed and grounded in accordance with all local codes and regulations.

Do not modify the provided plug if it does not fit the receptacle.

Have a proper receptacle installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The equipment-grounding conductor is the one with the green outer insulation (with/without yellow stripes). If repair or replacement of the electric cord or plug is necessary, do not connect the equip-grounding conductor to a live terminal.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-core extension cords with 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately. This power tool is intended for use on a circuit with a receptacle similar to the one illustrated in sketch A, Figure 5. A temporary adapter, similar to the one illustrated in sketches B and C, may be used to connect the power tool plug to a 2-pole receptacle as shown in sketch B, in case a properly grounded receptacle is not available. The temporary adapter should be used only until a properly grounded receptacle has been installed by a qualified electrician. The green-colored grounding lug extending from the adapter must be connected to a permanent ground such as a properly grounded receptacle box.

⚠ WARNING : Always connect the power tool to a grounded, metal, permanent wiring system ; or to a system having an equipment-grounding conductor.

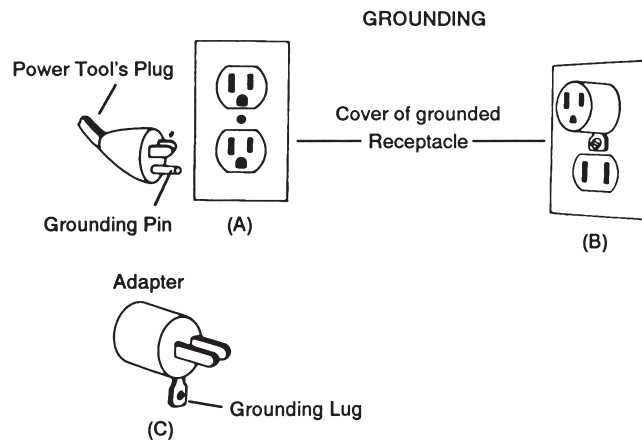


Fig. 5

(2) Three-phase models.

This power tool is equipped with an electric cord having an equipment-grounding conductor but is not equipped with a plug. Have a proper plug installed by a qualified electrician or serviceman. The plug must be plugged into a matching receptacle that is properly installed and grounded in accordance with all local codes and regulations.

3. Extension Cord.

Ampere rating (on nameplate)	5.1 to 7.0
Ext. cord length	Wire gauge size A.W.G.(mm ²)
25ft. (7.5m)	18A.W.G (1.0mm ²)
50ft. (15m)	16A.W.G (1.5mm ²)
75ft. (22.5m)	14A.W.G (2.0mm ²)
100ft. (30m)	12A.W.G (3.5mm ²)
200ft. (60m)	10A.W.G (5.5mm ²)

To use the power tool when no suitable power source is nearby, use an extension cord of suitable size to ensure safety, and to prevent power loss and overheating.

Determine from the accompanying table the required extension cord wire size.

Check power cords and extension cords for loose or exposed wires and damaged insulation, before using. Repair or replace as needed, before using the power tool.

For single-phase models, use only 3-conductor type cable extension cords with three-prong grounding-type plugs and 3-pole receptacles that accept the tool's plug.

For three-phase models, use only 4-conductor type with four-prong grounding-type plugs and 4-pole receptacles that accept the tool's plug.


⚠ WARNING : Always confirm that the far end of the cord is properly grounded. Otherwise it could cause personal injury by an electric shock.

BEFORE USING

1. **Make sure the power source is appropriate for the tool.**

 **WARNING :** Never connect the power tool unless the available AC power source is of the same voltage as that specified on the nameplate of the tool.
Never connect this power tool to a DC power source.

2. **Make sure the power switch is turned OFF.**

 **WARNING :** If the power cord is connected to the power source with the power switch turned ON, the power tool will start suddenly and could cause a serious accident.

3. **Check the band saw blade for visible defects.**

Confirm that the saw blade is free of cracks or other visible damages.


4. **Check the safety covers for proper operation.**

Safety cover is designed to protect the operator from coming into contact with the band saw blade during operation of the tool.

5. **Carefully adjust the tension and positioning of the band saw blade.**

When the band saw is shipped from the factory, the band saw blade is not mounted on the machine. Mount the band saw blade, and carefully adjust its tension and position.

(For details, please refer to Page 7, band saw blade tightening procedures.)

 **WARNING :** Ensure without fail that the band saw blade tension and position are properly adjusted. If not adjusted properly, the blade could fly off unexpectedly when the switch is turned ON and cause possible serious injury.

6. **Confirm V-belt tension.**

Carefully ensure that the V-belt is properly tightened.

(For details, please refer to Page 16, Inspection and maintenance of V-belt tension.)

CAUTION : If the V-belt is excessively tightened, it may cause damage to the motor ; if it is too loose, it will slip, seriously reducing the operational efficiency of the machine.)

7. **Check the Power Receptacle.**

To prevent overheating, accidental stopping or intermittent operation, confirm that the power plug fits properly in the electrical receptacle and does not fall out after it is inserted.

Repair or replace the receptacle, if it is faulty.

8. **Confirm that the tool's cabtire power cable is not damaged.**

Repair or replace the power cord if an inspection of the cabtire cable indicates that it is damaged.


AFTER CONNECTING THE POWER PLUG TO AN APPROPRIATE AC POWER SOURCE, CHECK THE OPERATION OF THE TOOL, AS FOLLOWS :

9. **Trial Run.**

After confirming that no one is standing in front of it, start the power tool and confirm that no operating abnormalities exist before attempting a cutting operation.

10. **Confirm the rotation direction(Three-phase machines).**

If the band saw blade moves upward when viewed from the front, immediately disconnect the machine from the power source and reverse the terminal connections of two of the three leadwires of the cord.

 **WARNING :** Turn the switch OFF immediately in the event of reverse rotation.
Reverse rotation will cause the nuts which fix the saw wheels to become loosened, resulting in serious hazard.

BEFORE CUTTING

1. Band saw blade tightening procedures.

⚠ WARNING : To avoid possible serious accident, be sure to turn the switch OFF and disconnect the plug from the power source outlet prior to handling the band saw blade.

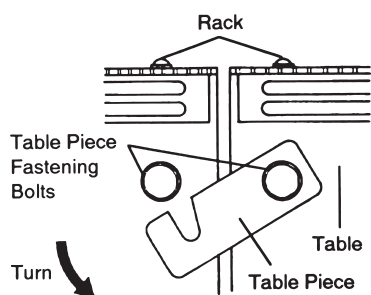


Fig. 6 - a

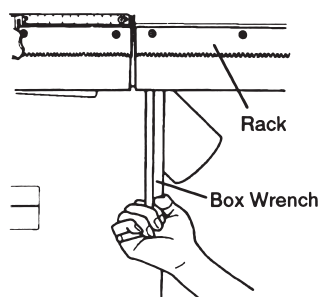


Fig. 6 - b

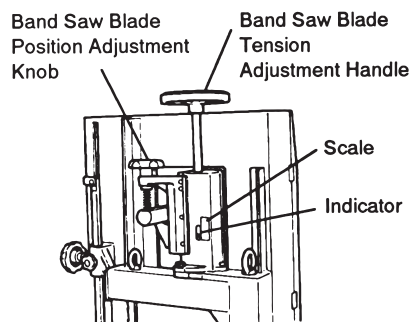


Fig. 7 - a

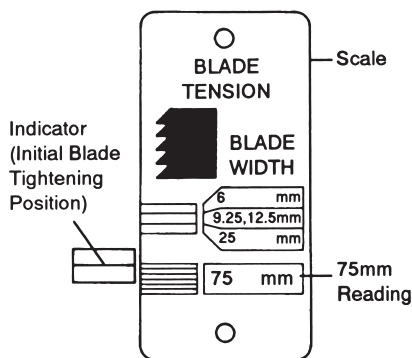


Fig. 7 - b

- (1) Position the guide so that it will not come in contact with the band saw blade.
- (2) Unfasten the upper and lower latches, and open the lower portion of saw cover (B) and the upper portion of saw cover (B). (See Fig. 1 - a)
- (3) A table piece is fastened at the band saw blade insert portion of the table (the slotted portion at the center of the table). (See Fig. 6 - a)
With the provided box wrench, loosen the two table piece fastening bolts and turn the table piece to a position which will allow insertion of the band saw blade.
(In the illustration in Fig. 6 - a, the table is viewed from below.)
- (4) Loosen the 5mm wing bolts and remove safety cover (B). (Refer to Fig. 1 - a)
- (5) Loosen the band saw blade tension adjustment handle by turning it approximately 5 revolutions counter-clockwise, and mount the band saw blade on saw wheels (A) and (B). (Refer to Figs. 1 - a and 1 - b)
- (6) Turn the band saw blade tension adjustment handle clockwise until the indicator is slightly above the upper side of the 75mm reading on the scale.
(See Figs. 7 - a and 7 - b)
- (7) While rotating saw wheel (B) alternately clockwise and counter-clockwise by hand, use the band saw blade position adjustment knob to set the band saw blade to the appropriate position as illustrated in Fig. 7 - c.

⚠ CAUTION : When rotating saw wheel (B), be very careful not to touch the band saw blade or pinch your hand between saw wheel (B) and the band saw blade.

NOTE : Whenever the band saw blade tension is changed, ensure without fail that the band saw blade is also readjusted to the position illustrated in Fig. 7 - c by adjusting the band saw blade position adjustment knob.

- (8) On completion of the procedures described above, turn the band saw blade tension adjustment handle to bring the indicator into alignment with the center of the 75mm reading on the scale. This setting ensures optimum tension on the band saw blade.
- (9) Finally, reassemble safety cover (B), and fasten it securely with the 5mm wing bolts, and return the table piece to its original position, and secure it by tightening the two bolts with the provided box wrench.

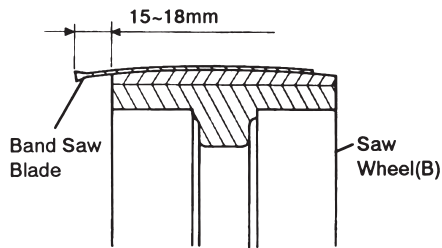


Fig. 7 - c



CAUTION :

1. Ensure without fail that safety cover (B) is reassembled and fastened securely with the 5mm wing bolts.
2. Never touch the band saw blade tension adjustment handle or band saw blade position adjustment knob while operating the machine. Should they be turned during operation, the band saw blade could fly off unexpectedly and cause serious damage and/or injury.

2. Adjustment of the guide.

If the guide is not properly adjusted, uneven cutting will result.

[FOR MODEL CB75F]

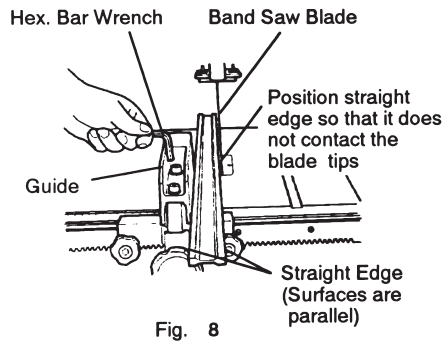


Fig. 8

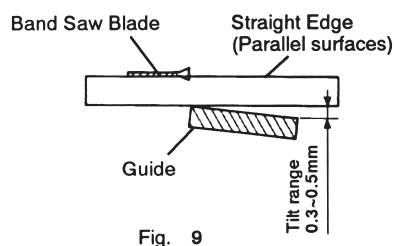


Fig. 9

- (1) After ensuring that the band saw blade is properly tightened as described above, loosen the two hex. socket hd. bolts with the provided hexagon bar wrench, and adjust the guide so that it is parallel with the side surface of the band saw blade.

At this time, inserting a straight edge (ensure its two opposite surfaces are parallel) between the band saw blade and guide, as illustrated in Fig. 9, will permit easy and accurate adjustment of guide parallelism.

- (2) On completion of parallelism adjustment, fasten the guide securely in position with the provided hex. bar wrench.

NOTE :

1. When the band saw blade is replaced with a new one, the guide must be re-adjusted.
2. Should the surface be not even if the guide is adjusted by following the above procedures, tilt the guide approximately 0.012 ~ 0.020" (0.3 ~ 0.5mm) as illustrated in Fig. 9.

[FOR MODEL CB75F]

- (1) Turn the set gauge so that it becomes parallel with the guide. (See Fig. 10-a)
- (2) Press the set gauge against the side of the band saw blade so that it does not contact the blade tip portion, and adjust the parallelism. (See Fig. 10-b)
- (3) On completion of parallelism adjustment, fasten the guide securely in position with the provided hex. bar wrench. (See Fig. 11)
- (4) Return the set gauge to its original position, and secure it properly.

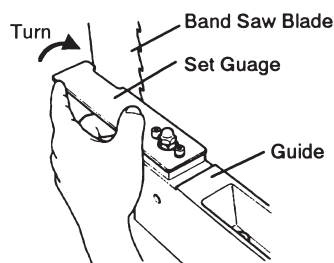


Fig. 10 - a

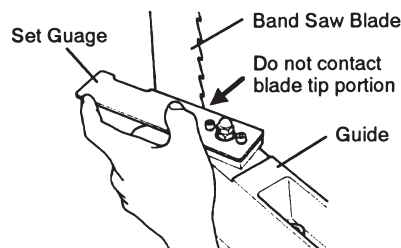


Fig. 10 - b

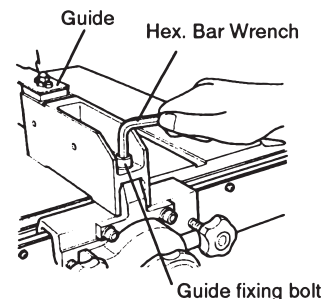


Fig. 11

3. Adjustment of the stabilizer.

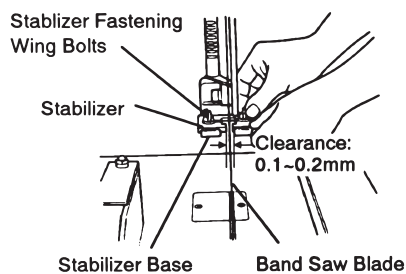


Fig. 12 - a

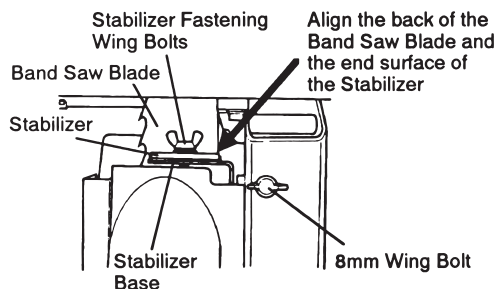


Fig. 12 - b

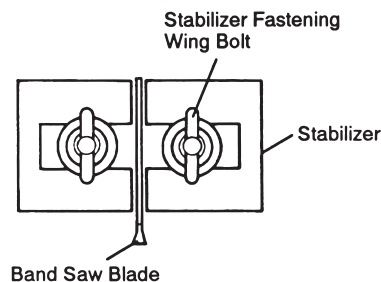


Fig. 12 - c

4. Adjustment of the blade holder.

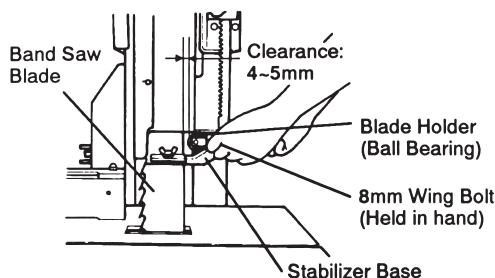


Fig. 13

If the stabilizer is not properly adjusted, lateral vibration of the band saw blade will cause uneven cutting.

After ensuring that the band saw blade is properly tightened as described above, loosen the two wing bolts which fasten the stabilizer, and adjust the clearance between the band saw blade and the stabilizer to within 0.004~0.008 (0.1~0.2mm)

(a dimension approximately the same as the thickness of a postcard).

By moving the stabilizer base, adjust the stabilizer so that its end surface is aligned with the back of the band saw blade. Then, secure it in position with the M8 wing bolt. (See Figs. 12- b and 12- c)

When adjusting the stabilizer, pay particular attention to the following points :

- Prior to adjusting the stabilizer, ensure the stabilizer shaft is securely fastened with the stabilizer shaft fixing knob bolt.
- Ensure that neither of the stabilizer blocks contacts the sides of the band saw blade.
- Ensure that the stabilizer blocks do not pinch the band saw blade and interfere with its smooth operation.
- Ensure that the side surfaces of the stabilizer blocks are parallel with the band saw blade surfaces.

⚠ CAUTION :

Prior to commencing machine operation and particularly after replacement of the band saw blade, confirm without fail that the stabilizer is properly adjusted.

The blade holder is installed to prevent the band saw blade from possibly being forced off of the saw wheels by the force of the workpiece.

Loosen the M8 wing bolt, and adjust the blade holder (Ball bearing) so that the clearance between the back of the band saw blade and the blade holder is within 0.157~0.197 (4~5mm).

PRACTICAL APPLICATIONS

1. Switch operation

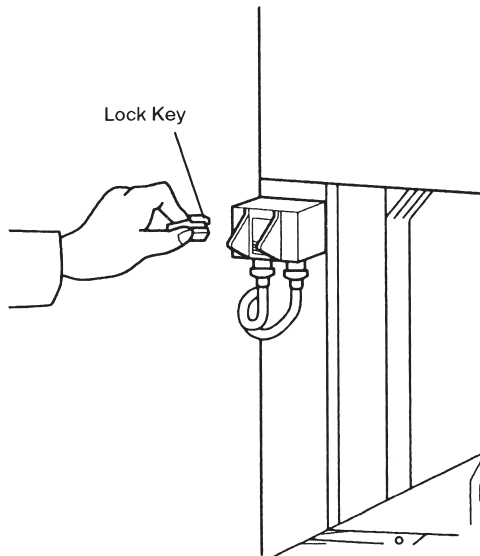


Fig. 14

The lock key is designed to prevent inadvertent operation of the power tool. To operate the power tool, it is necessary to first fully insert the lock key.

The lock key can be removed regardless of switch position.

Always remove the lock key and store it in a secure place when the machine is not in use. Also be sure the switch is turned off.

⚠ WARNING : Always remove the lock key from the tool when the power tool is not in use. This will ensure that the power tool cannot be turned on accidentally, or by someone (especially a child)not qualified to use the power tool. If the lock key is left in the tool, serious personal injury could result.

⚠ CAUTION : Do not operate the ON/OFF switch while shavings and debris are in the unit.
Blow away the shavings and debris in the switch unit.

2. Cutting operation.

(1) Use of the cutting width digital display device.(Model CB75FA only)

- Turn the set gauge so that it becomes parallel with the guide. (Refer to Fig. 10- a)
- Move the guide close to the band saw blade, and set the set gauge so that it lightly contacts the cutting tip of the band saw blade. (See Fig. 15)
- Push the reset button under the digital display unit to bring the display reading to 0 . (See Fig. 16)
- Move the guide until the desired cutting width dimension is indicated on the digital display unit, and secure the guide in position with the guide fixing knob. (Refer to Fig. 1- a)
The digital display device indicates the distance between the band saw blade and the guide (the material cutting width dimension) in three digital units.(metric units)
- On completion of the procedures described above, ensure without fail that the set gauge is returned to its original position and securely fixed.

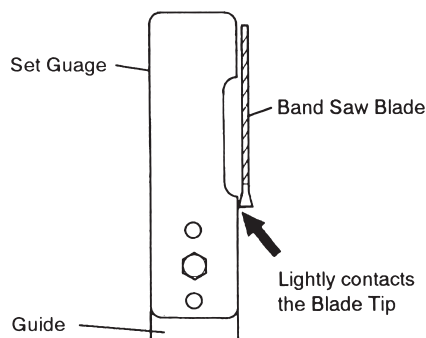


Fig. 15

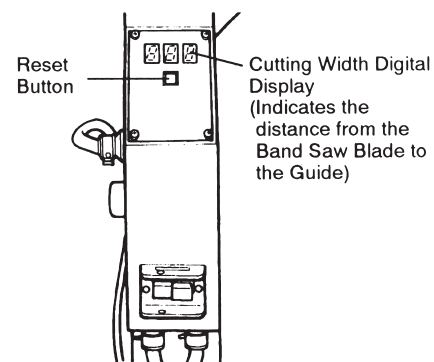


Fig. 16

(2) Use of the guide.

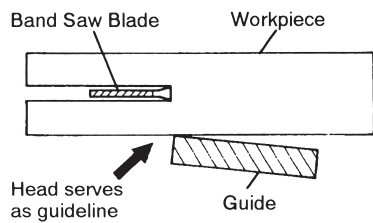


Fig. 17

When performing the cutting operation, feed the workpiece using the head of the guide as a guideline as illustrated in Fig. 17.

This convenient guideline method will prevent uneven cutting.

(3) Cutting operation.

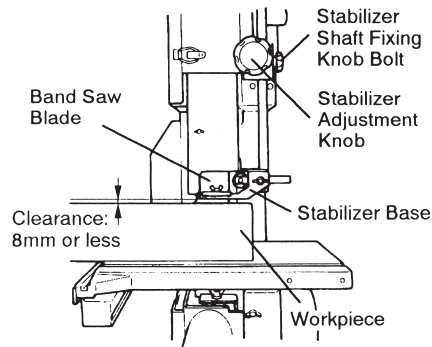


Fig. 18

(a) Loosen the stabilizer shaft fixing knob bolt, and adjust the clearance between the cutting material and the stabilizer base to 0.31" or less (8mm or less). (See Fig. 18)

(b) Push the start button to ON to operate the motor and to start the band saw blade rotating.

(c) Gently place the workpiece on the table, and feed it slowly to the band saw blade.

(d) As illustrated in Fig. 17, use the head of the guide as guideline when feeding the cutting material.

⚠ WARNING : When nearing the end of the cutting operation, be particularly careful not to touch the band saw blade with your hands, clothing, etc.

(4) Tilted sawing operation.

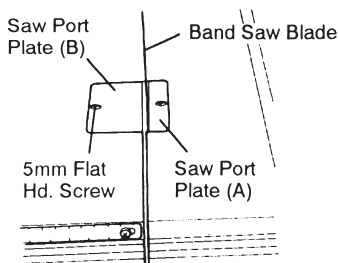


Fig. 19

(a) Loosen the two 5mm flat hd. screws which fasten the saw port plates, and remove the saw port plates (A) and (B). (See Fig. 19)

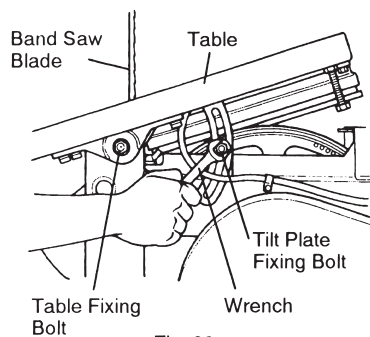


Fig. 20

(b) With the provided wrench, loosen the tilt plate fixing bolt. (See Fig. 20)

(c) Loosen the table fixing bolt with the provided wrench, tilt the table to the desired cutting angle, and secure the table in position with the table fixing bolt. (See Fig. 20) The table may be tilted within an angle of 0~45°.

(d) Tighten the tilt plate fixing bolt securely to prevent the table tilt angle from changing during operation.

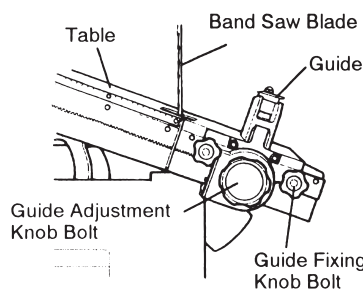


Fig. 21

(e) Placing the guide to the righthand side of the band saw blade will ensure efficient and accurate tilted sawing operation. (See Fig. 21)

NOTE : At all times other than tilted sawing operation, ensure without fail that the saw port plates are securely attached on the table.

3. Stopping the cutting operation.

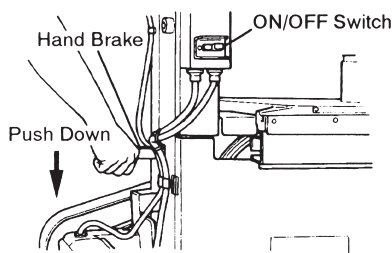


Fig. 22

Turn the switch OFF by pressing the white-colored button, and apply the hand brake. The machine should come to a stop within 3 to 5 seconds. (See Fig. 22)

⚠ CAUTION : When cutting operation is completed, ensure without fail that the switch is turned OFF, and the plug is removed from the power source outlet.


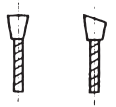
4. Countermeasures for unstable movement of the band saw blade.

One or more of the following items may cause unstable movement of the band saw blade. Stop operation immediately in the event unstable movement is noted or suspected, carefully inspect for possible causes, and take appropriate countermeasures as indicated.

POSSIBLE CAUSES		COUNTERMEASURES
1	Saw dust or resin sticking to the band saw blade or saw wheels.	Remove thoroughly with damp rag or wooden stick. Apply lubrication.
2	Improper tension on band saw blade.	Adjust tension by referring to the band saw blade tightening procedures.
3	Improper positioning of the band saw blade.	Adjust positioning by referring to the band saw blade tightening procedures.
4	Crack in the band saw blade. (Check for excessive tension)	Replace the band saw blade.
5	Insufficient alignment of the band saw blade cutting edge.	If unstable movement continues after the above items are checked, the band saw blade cutting edge may be misaligned. In such a case, the cutting edge should be re-aligned, or the band saw blade should be replaced.

5. Countermeasures in case straight cutting cannot be obtained.

In the case straight cutting cannot be obtained even after appropriate procedures and adjustments have been properly made, carefully inspect for possible causes and take appropriate countermeasures as indicated.

POSSIBLE CAUSES		COUNTERMEASURES
1	Blade teeth are not sharp.	Re-sharpen the blade teeth.
2	 Edge broken Broken teeth edges. (Tipped portion)	Re-sharpen the blade teeth. However, if only one or two teeth are chipped, this should not prevent straight cutting. ⚠ CAUTION : Sand or nails in or on the workpiece will cause damage to the cutting edge.
3	 Incorrect shaping of teeth during Blade sharpening.	Re-sharpen the blade teeth. However, if only one or two teeth are misshapen, this should not prevent straight cutting.
4	Excessively fast feeding when the workpiece contacts the band saw blade.	Feed the workpiece slowly at the beginning of the cutting operation. When sawing has begun, speed may be increased in accordance with the type and condition of the workpiece.
5	Excessively fast and forceful feeding of the workpiece.	Excessively fast and forceful feeding will only cause inefficient and uneven cutting. Feed the material at a speed most suitable for the type and condition of the workpiece.

6. Cutting operation with narrow width band saw blades.(Optional accessory)

Only those procedures which are different from the procedures for standard accessory 2.95" (75mm) wide-width band saw blades are described below. Remaining procedures are the same for both types.

(1) Tightening procedures for narrow width band saw blades.

⚠ WARNING : To avoid possible serious accident, be sure to turn the switch OFF and disconnect the plug from the power source outlet prior to handling the band saw blade.

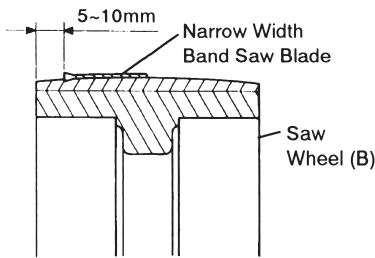


Fig. 23

- (a) Perform the same procedures described in Items (1) ~ (5) for wide-width blades.
- (b) Turn the band saw blade tension adjustment handle until the indicator is positioned slightly above the appropriate reading on the scale in accordance with the width of the band saw blade. (Refer to Figs. 7- a and 7- b)
- (c) While rotating saw wheel (B) alternately clockwise and counte-clockwise by hand, use the band saw blade position adjustment knob to set the band saw blade to the position illustrated in Fig. 23.

WARNING : When rotating saw wheel (B), be very careful not to touch the band saw blade or pinch your hand between saw wheel (B) and the band saw blade.

- (d) On completion of the procedures described above, turn the band saw blade tension adjustment handle to bring the indicator into alignment with the center of the appropriate reading on the scale.

(2) Removal of the guide.

[FOR MODEL CB75F]

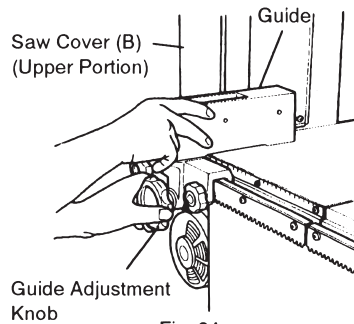


Fig. 24

When performing curved cutting with a narrow-width band saw blade, the guide may interfere with operation. In such a case, open the upper portion of saw cover (B) move the guide adjustment knob to the left side, and remove the guide.

With the provided hexagon bar wrench, loosen the guide fastening bolts and take off the guide.

When reassembling the guide, it is only necessary to tighten the guide fastening bolts. It is not necessary to readjust the parallelism between the guide and the band saw blade.

[FOR MODEL CB75FA]

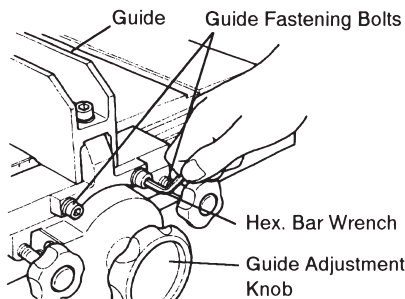


Fig. 25 - a

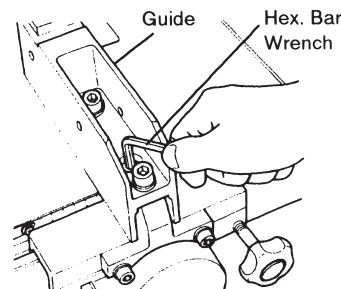


Fig. 25 - b

(3) Adjustment of the stabilizer.

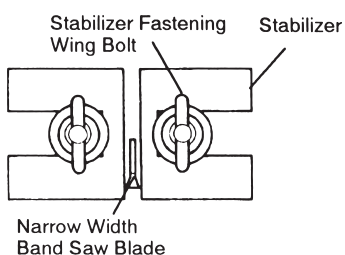
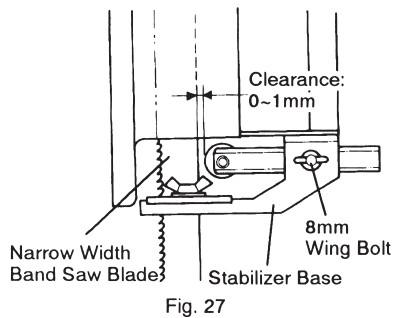


Fig. 26

After ensuring that the band saw blade is properly tightened, attach the stabilizer blocks in reverse (opposite from setting with 2.95" (75mm) band saw blades) as illustrated in Fig. 26, and adjust them so that they lightly contact the band saw blade cutting edge tips.

(4) Adjustment of the blade holder.



Loosen the 8mm wing bolt, and adjust the blade holder (ball bearing) so that the clearance between the back of the band saw blade and the blade holder is within 0~0.04" (0~1mm).

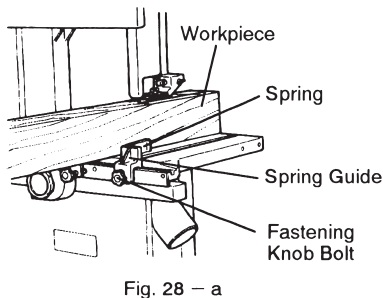
(5) Cutting operation.

When performing curved cutting, if excessive force is applied in feeding the workpiece it will cause irregular cutting and/or possible breakage of the band saw blade.

Accordingly, feed the material slowly for efficient operation.

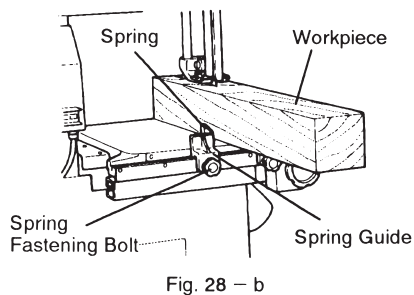
7. Use of the spring guide.(Optional accessory)

Use of the optional spring guide provides more accurate cutting operation with less possibility of uneven cutting surfaces.



(1) Insert the spring guide into the guide groove, and secure it in position with the spring guide fastening knob bolt. (See Fig. 28- a)

(2) When the workpiece is pressed by the spring guide, the appropriate deflection of the spring should be within the range of 0.20 ~ 0.40" (5 ~ 10mm).

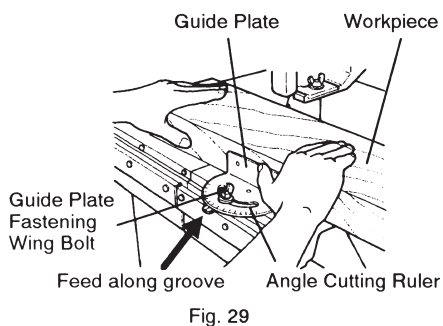


(3) When operating the machine with the guide mounted on the righthand side, the spring guide is mounted on the opposite side.

In this way, tilted sawing operation is also possible.

8. Use of the angle cutting ruler.(Optional accessory)

When oblique cutting of the workpiece is required, use of the optional angle cutting ruler provides efficient and accurate cutting operation.



(1) If the guide interferes with the cutting operation, remove it as illustrated in Figs. 24 and 25.

(2) Loosen the guide plate fastening wing bolt, and adjust the guide plate to the desired cutting angle.

(3) By fitting the angle cutting ruler into the provided groove on the table and sliding the ruler along the groove, efficient and accurate angle cutting can be obtained.

9. Use of the auxiliary roller.(Optional accessory)

When it is necessary to cut particularly long workpieces, the optional auxiliary roller provides stable support for efficient cutting operation.

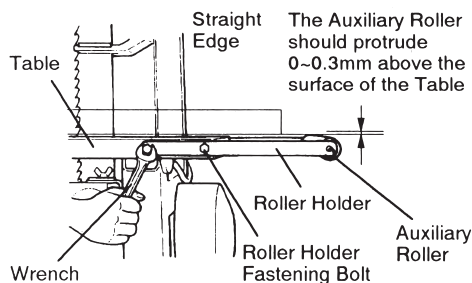


Fig. 30

- (1) Assemble the roller holder to the table, and attach the roller.
- (2) Most efficient cutting operation is ensured if the roller protrudes 0~0.012" (0~0.3mm) above the surface of the table.
It is recommended that a straight edge (ruler) be used to ensure that the roller protrudes by the appropriate amount.

10. Use of the optional accessory band saw blade guide ass'y for the narrow width blade.(Optional accessory)

When performing straight cutting with a narrow width band saw blade, use the optional band saw blade guide assemblies to avoid uneven cutting.

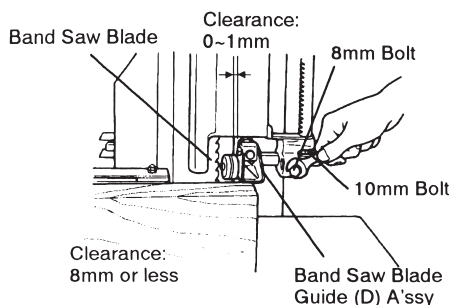


Fig. 31 - a

- (1) For the upper stabilizer, loosen the M10mm bolt, disassemble the stabilizer base, and assemble the band saw blade guide (D) ass'y. (See Fig. 31 - a)

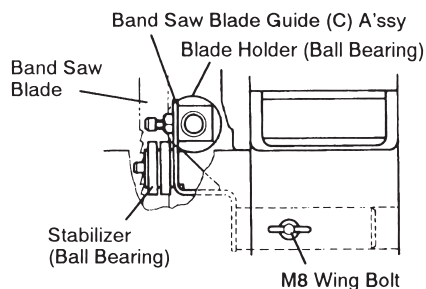


Fig. 31 - b

- (2) For the lower stabilizer, loosen the M8mm wing bolt, disassemble the stabilizer base, and assemble the band saw blade guide (C) ass'y. (See Fig. 31 - b)

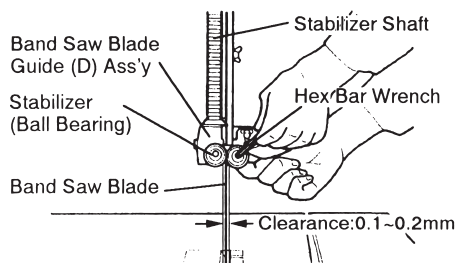


Fig. 31 - c

- (3) Tighten the narrow width blade properly, and adjust the clearance between the band saw blade and the stabilizer (Ball bearings) to (0.1~0.2mm). (See Fig. 31 - c)
- (4) Make the clearance between blade holder (Ball bearings) and the band saw blade to 0~ (0~1mm). (See Fig. 31 - a)

NOTE : Two types of optional guide assemblies are available. One is for 1" (25mm-width) band saw blade, and the other is for 1/2" (12.5mm -width).

MAINTENANCE AND INSPECTION

⚠ WARNING : Always confirm that the power switch is turned OFF and that the power plug has been disconnected from the receptacle before performing any maintenance or inspection of this tool, to avoid accidental injury.

1. Maintenance of the band saw blade.

When the machine is not in use, loosen the tension on the band saw blade. If the band saw blade is kept at operational tension for long periods of time, it may become stretched and slackened.

This will cause uneven cutting, and could result in serious damage or injury should the band saw blade fly off unexpectedly.

- The cutting edge tips of the standard accessory band saw blade are constructed of especially hard material (Stellite), and may be easily damaged if they strike against hard materials such as concrete, stone, metal, etc. Accordingly, exercise particular care in handling.
- If the machine is to be stored or left unused for long periods of time, remove the band saw blade from the machine.
- If the band saw blade is not to be used for a long period of time, coat it with light oil or rust-preventive oil to protect against rusting. However, when applying the rust-preventive oil, be very careful not to get any on the rubber portions of the saw wheels. Also, thoroughly remove the rust-preventive oil prior to operating the machine.
- When cutting workpieces which contain excessive resin, some of the resin may stick to the band saw blade and reduce its cutting effectiveness. In such a case, do not attempt to speed up the cutting process by apply excessive pressure on the workpieces as this will only reduce the service life of the blade. Rather, stop the operation and clean the blade as thoroughly as possible.
- Regularly remove any sawdust or wood chips which may adhere to the band saw blade.

2. Inspection of the saw wheels and sawdust removers.

Sawdust removers (Duster ass'ys) are installed at the outer circumference of the saw wheels to prevent the build up of sawdust (See Fig. 1-a). However, it is recommended that the band saw blade be removed occasionally, and any saw dust or resin adhered to the saw wheels be removed with a wirebrush and/or abrasive paper.

The accumulation of sawdust between the saw wheels and the band saw blade may cause excessive tension on the blade and result in breakage.

3. Inspecting the carbon brushes.(Single-phase models only)

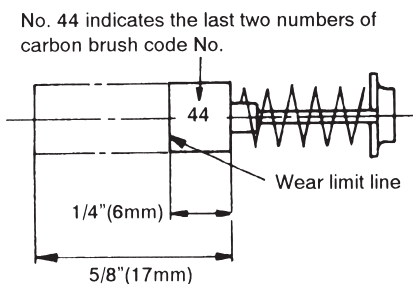


Fig. 32

The carbon brushes in the motor are expendable parts. If the brushes become excessively worn, motor trouble might occur.

Therefore, inspect the brushes periodically, and replace them when they have become worn to the wear limit line, as shown in Fig. 32.

Also, keep the carbon brushes clean so that they will slide smoothly within the brush holders.

When replacing carbon brushes, disassemble each brush cap with a minus screwdriver. Each carbon brush can then be easily removed.

4. Inspecting the mounting screws.

Regularly inspect each component of the power tool for looseness. Re-tighten mounting screws on any loose part.

⚠ WARNING : Never operate the power tool if any components are loose, to prevent personal injury.

5. Inspection and maintenance of V-belt tension.

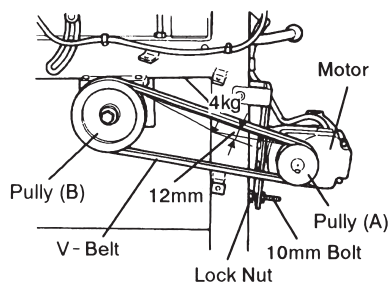


Fig. 33

If V-belt tension becomes too weak, there will be slippage between the V-belt and the pulleys, and the transmission of power will be considerably decreased. Accordingly, the V-belt must be inspected at regular intervals.

When the V-belt tension is correctly adjusted, there will be approximately 0.47" (12mm) of deflection when the belt is pushed down with a force of 8.8lbs (4kg) at a point halfway between pulley (A) and pulley (B). (See Fig. 33)

ADJUSTMENT PROCEDURE

- (1) Loosen the three 8mm bolts, and remove the belt cover. (Refer to Fig. 1 – b)
- (2) Loosen the lock nut, and rotate the 10mm bolt to adjust the V-belt to the correct tension as illustrated in Fig. 33.
- (3) On completion of adjustment, without fail secure the 10mm bolt in position by tightening the lock nut.

6. Storage.

Confirm that the switch is turned OFF, and that the power plug has been removed from the receptacle.

When the tool is not in use, keep it stored in a dry place out of the reach of children.

7. Lubrication.

Ensure that all machine moving parts are kept properly lubricated to maintain smooth, efficient and accurate operation.

Coat the upper surface of the table and the surface of the guide with oil to prevent rusting.

8. Cleaning.

Periodically remove chips and other waste material from the surface of the power tool with a damp, soapy cloth. To avoid a malfunction of the motor, protect it from contact with oil or water.

SERVICE AND REPAIRS

All quality power tools will eventually require servicing or replacement of parts because of wear from normal use. To assure that only authorized replacement parts will be used, all service (other than routine maintenance) must be performed by an AUTHORIZED HITACHI POWER TOOL REPAIR CENTER, ONLY.

NOTE: Specifications are subject to change without any obligation on the part of HITACHI.

WARNING:

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

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- 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.

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