



17" VARIABLE SPEED WOOD/METAL CUTTING BANDSAW

04/2016



MODEL: KC-1700WM-VS

INSTRUCTION MANUAL

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WARRANTY INFORMATION & SPECIFICATIONS

**2-YEAR
LIMITED WARRANTY
FOR THIS 17" WOOD/METAL BANDSAW**

**KING CANADA TOOLS
OFFERS A 2-YEAR LIMITED WARRANTY
FOR NON COMMERCIAL USE.**

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized serviced center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.

**KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4
www.kingcanada.com**

BANDSAW SPECIFICATIONS

Motor	2 HP, 220V, 3 phase, 7 Amp
Input power	220V, 1 phase
Cutting Height	12"
Max. Cutting Width	16 -1/4"
Max. Cutting (Rip Fence)	14 -5/8"
Saw Blade (L)	131-1/2"
Saw Blade (W)	1/8" to 1"
Saw Blade Speed	(100-650, 540-3600 SFPM)
Table Size	23-5/8" x 17"
Table Tilting	Left - 5°/Right - 45°
Wheel Size	17"
Table Height From Ground	37-1/2"
Dust Chute Diameter	4" (D) x 2
Assembled dimensions/weight	33" x 30" x 74" (400 lbs)

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS



1. KNOW YOUR TOOL

Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. GROUND THE TOOL.

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

3. KEEP GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned.

4. REMOVE ADJUSTING KEYS AND WRENCHES.

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.

6. AVOID DANGEROUS ENVIRONMENT.

Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

7. KEEP CHILDREN AWAY.

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP CHILD-PROOF.

Use padlocks, master switches or remove starter keys.

9. USE PROPER SPEED.

A tool will do a better and safer job when operated at the proper speed.

10. USE RIGHT TOOL.

Don't force the tool or the attachment to do a job for which it was not designed.

11. WEAR PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

12. ALWAYS WEAR SAFETY GLASSES.

Always wear safety glasses (ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses, they are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.

13. DON'T OVERREACH.

Keep proper footing and balance at all times.

14. MAINTAIN TOOL WITH CARE.

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS.

Before servicing, when changing accessories or attachments.

16. AVOID ACCIDENTAL STARTING.

Make sure the switch is in the "OFF" position before plugging in.

17. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

18. NEVER STAND ON TOOL.

Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

19. CHECK DAMAGED PARTS.

Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced.

20. NEVER LEAVE MACHINE RUNNING UNATTENDED.

Turn power "OFF". Don't leave any tool running until it comes to a complete stop.

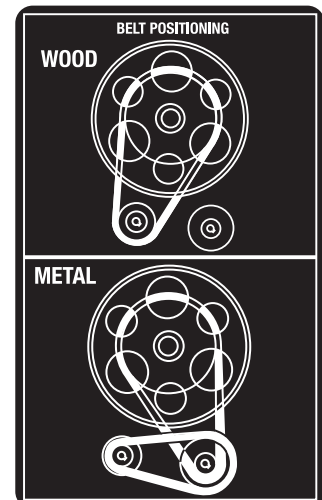


GETTING TO KNOW YOUR 17" WOOD/METAL BANDSAW



- 1) Transport hook
- 2) Blade tension viewing window
- 3) Blade speed digital readout
- 4) Variable speed control dial
- 5) Keyed On/Off control switch
- 6) On/Off master switch
- 7) Rip fence
- 8) Blade tension handwheel
- 9) 4" Dust chute (2)
- 10) Belt tension adjustment handwheel
- 11) Lower wheel cover lock knob
- 12) Miter gauge
- 13) Blade
- 14) Upper ball bearing blade guide system
- 15) Worklight
- 16) Blade guide height adjustment handwheel

- 17) Laser guide
- 18) Upper wheel cover lock knob
- 19) Blade tracking viewing window
- 20) Blade guide lock knob
- 21) Quick release blade tension lever
- 22) Blade tracking adjustment lever
- 23) Blade tracking lock knob
- 24) Lower blade wheel pulley
- 25) Motor/drive pulley
- 26) Pulley for metal cutting operations
- 27) Metal cutting operation spinning indicator
- 28) Motor position lock handle
- 29) Motor position adjusting handle
- 30) 3 Phase 220V motor
- 31) Single phase inverter



ELECTRICAL INFORMATION



WARNING!

ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE BANDSAW DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

WARNING!

220V 3 PHASE MOTOR- INPUT POWER: 220V 1 PHASE POWER SUPPLY

GENERAL INFORMATION- 220V single phase operation

This 17" wood/metal bandsaw comes with a 2 HP 220V 3 Phase motor. A single phase (1 phase) inverter allows this machine to be run on 220V 1 phase input power.

ELECTRICAL SUPPLY

WARNING: YOUR BANDSAW MUST BE CONNECTED TO A 220V, 1 PHASE ELECTRICAL SUPPLY. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

This bandsaw is intended for use on an electrical circuit that has an outlet and a plug which looks like the one illustrated in Fig.A.

WARNING: DO NOT USE A TWO-PRONG ADAPTOR FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

GROUNDING

Your bandsaw must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This bandsaw is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: TO MAINTAIN PROPER GROUNDING OF YOUR BANDSAW, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

WARNING: IF NOT PROPERLY GROUNDED, THIS BANDSAW CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

EXTENSION CORDS

The use of an extension cord is generally not recommended for 220V operation. The use of any extension cord will cause some loss of power. Use the table (Fig.B) to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord needed. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the bandsaw motor. Refer to Fig.B for wire length and size.

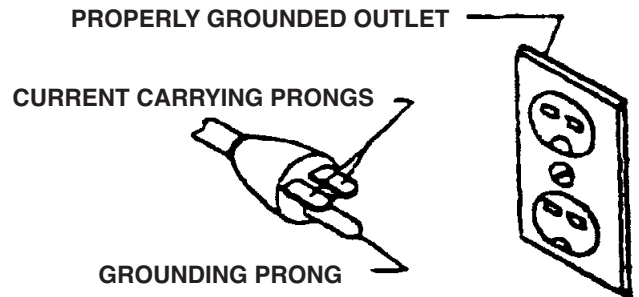


FIGURE A

<u>LENGTH OF EXTENSION CORD</u>	<u>WIRE SIZES REQUIRED (AMERICAN WIRE GAUGE)</u>
0-25 FEET	<u>220V LINES ONLY</u> NO.14
26-50 FEET	NO.12
51-100 FEET	NO.10

FIGURE B



ASSEMBLY & ADJUSTMENTS

MOVING YOUR BANDSAW

1. Use a 2000kg. chain hoist connected to the top mounted transport hook to move the bandsaw to the desired location.
2. To ensure sufficient stability and security, bolt the base of the bandsaw to the floor using the 4 mounting holes.

ASSEMBLY

Mounting Top Handwheel and Laser Guide

1. Attach handle (A) Fig. 1 to the handwheel (B), then slide the handwheel onto the shaft on the side of the bandsaw. Secure the handwheel by tightening the cap screw with a hex. key (located on the hub of the handwheel).
2. Install the laser guide mounting bracket (A) Fig.2 to the upper wheel cover by threading the countersunk head screw (B) from the outside and the pan head screw (C) from the inside of the wheel cover.
3. Install batteries (2 x AA batteries) inside the laser guide (D), then slide it into the mounting bracket (A) and secure it by tightening the fixing screw (E).



FIGURE 1

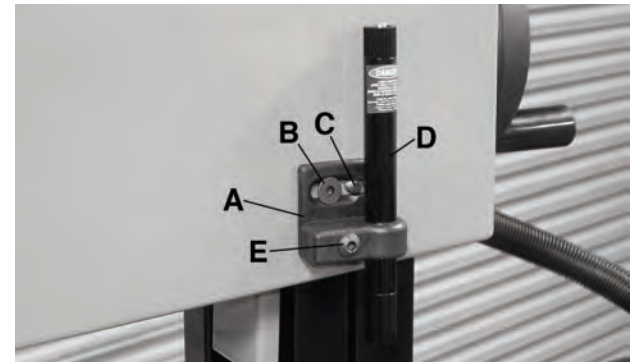


FIGURE 2

Mounting and Adjusting Table

1. To mount the table (C) Fig.4, remove table insert (A) Fig.4 and table pin (B) Fig.4 from the table.
2. Slide the blade through the table and place the table onto the trunnions (A) Fig.3, line up the 4 mounting holes and fix table to the trunnions using spring washers and hex. bolts (B) Fig.3, then replace table insert and table pin.
3. Loosen lock handle (E) Fig.3 and turn the micro-adjustment knob (F) Fig.3 to tilt the table (as shown in Fig.3), retighten lock handle. Install the 90° stop bolt and nut (C & D) Fig.3 to the main frame. Lower the table until it rests against the 90° stop bolt.
4. Place a square (D) Fig.4 on the table and up against the blade (E) Fig.4 to see if the table is 90° to the blade. If the table is not 90°, an adjustment to the 90° stop bolt and nut (C & D) Fig.3 is needed.
5. Loosen lock handle (E) Fig.3 and turn the micro-adjustment knob (F) to position table at 90°. Loosen hex. nut (D) Fig.3 and adjust the height of the 90° stop bolt (C) Fig.3 as needed. After the adjustment, retighten the hex. nut (D) Fig.3 and re-adjust the position the angle pointer (under the trunnion) to 0°.

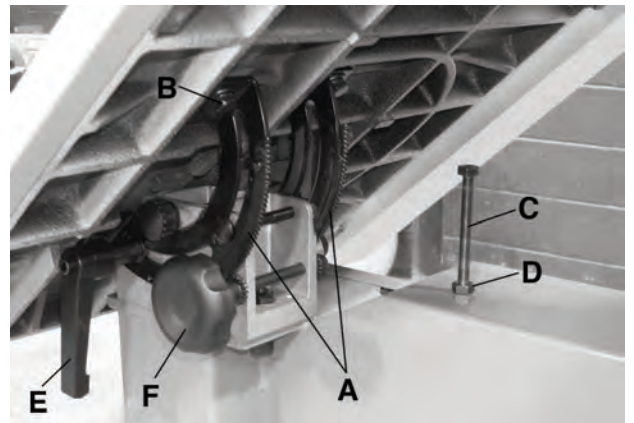


FIGURE 3

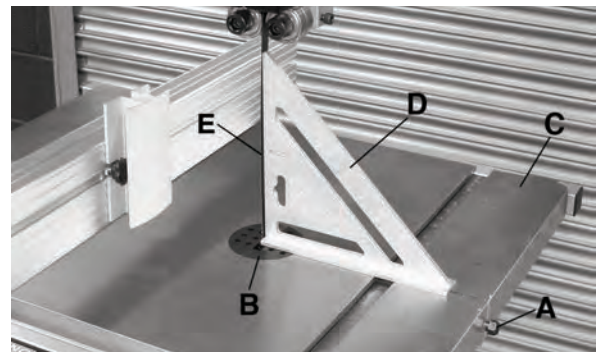


FIGURE 4

ASSEMBLY & ADJUSTMENTS



Installing rip fence system with resaw guide

1. Mount the large front rail mounting brackets (A) Fig.5 to the front of the table using hex. bolts.
2. Mount lock knobs (B) and flat square nuts (C) to the mounting brackets as shown.
3. Slide the square slot at the bottom of the front rail (A) Fig.6 onto both flat square nuts, tighten lock knobs (B) to secure the front rail in the desired position.
4. Mount the small rear rail mounting brackets (A) Fig.7 to the rear of the table using hex. bolts.
5. Mount lock knobs (B) Fig.7 and flat square nuts (C) to the mounting brackets as shown.
6. Slide the square slot at the bottom of the rear rail onto both flat square nuts, tighten lock knobs (B) Fig.7 to secure the rear rail in the desired position.
7. Position the rip fence (A) Fig.8 onto the front and rear rails. Lower the front handle (B) to lock rip fence into position.
8. Install the resaw guide (C) Fig.8 to the fence body using the 2 small lock knobs (D). Slide and position the resaw guide so that it is centered with the front edge of the blade and tighten lock knobs.

Adjusting the height of the rip fence above the table top

The rip fence should be no more than 1mm above the table top. To adjust the height of the rip fence, loosen the front rail and rear rail mounting brackets (A-Fig.5 and Fig.7), adjust the height of the mounting brackets until the rip fence is positioned 1mm above the table top, retighten front rail and rear rail mounting brackets.

Using the resaw guide

Resawing is a method of ripping a piece of lumber into thinner pieces as well as making book matched or slip matched panels. The curved resaw guide (C) Fig.8 is the best option for guiding wood through the bandsaw. The narrow line of contact makes it easy to compensate for a blade that "leads" or wanders off the cutting line when the stock is fed straight into it. You can get satisfactory results with this resaw guide "single point" method, but it demands very careful hand control.

Here's how you can resaw precisely and easily using resaw guide (A-below). Pencil a straight line down the edge of a square edged board. Start sawing along your layout line, guiding the board freehand. If the blade is leading, you will have to feed the board into the blade at a slight angle to keep cutting along the line and to compensate for blade drift. See illustration below.

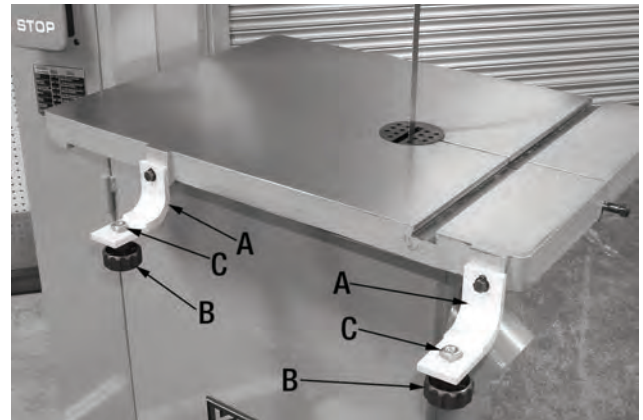
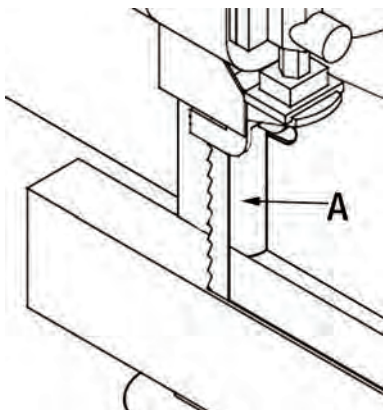


FIGURE 5

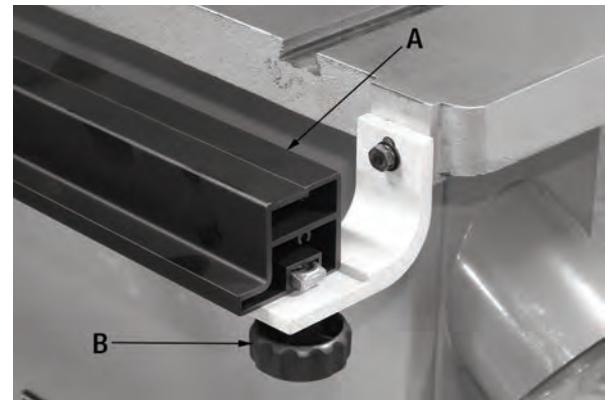


FIGURE 6

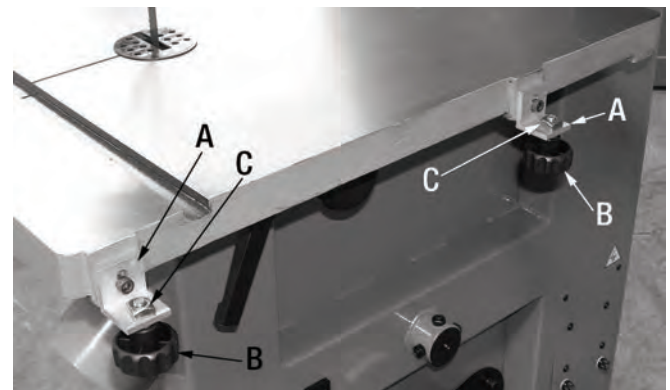


FIGURE 7

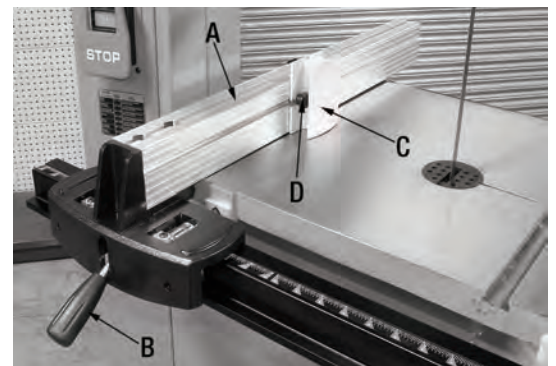


FIGURE 8



ADJUSTMENTS & OPERATION

CHANGING BLADES

Loosening Upper and Lower Blade Guides for Blade Removal

Upper Blade Guides

1. Loosen cap screws (A) Fig.9 on both sides, turn both cap screws (B) to widen the gap between the ball bearings.
2. Loosen cap screw (C) Fig.9, and move the upper back-up ball bearing shaft (D) backwards away from the blade.

Lower Blade Guides

1. Loosen cap screws (A) Fig.10 on both sides, turn both cap screws (B) to widen the gap between the ball bearings.
2. Loosen cap screw (C) Fig.10, turn the position adjusting knob (D) to move the lower thrust bearing (E) backwards away from the blade.

Removing/Installing Blade

1. Unplug power cord.
2. Remove the table insert and table pin from the table.
3. Open upper and lower wheel covers.
4. To quickly release blade tension, Pivot the quick release blade tension lever (A) Fig.11 upwards as shown.
5. Remove the blade by guiding it through the frame and table slots.

Important: Before reinstalling blade on blade wheels, make sure the teeth of the new blade are pointing downwards.

6. Guide the new blade through the table slot, place blade in upper and lower ball bearing guide systems.
7. Place blade in the middle of the upper and lower blade wheels, tension the blade by pivoting the quick release blade tension lever (A) Fig.11 downwards.
8. Reinstall the table insert and table pin.

Blade Tension Adjustment

The following information can be used as a guideline to assist you in determining the ideal blade tension for your needs, as blade tension is quite subjective.

- When cutting with wide blades, re-sawing stock, straight cuts tighter blade tensions will produce better results.
- When cutting with narrow blades, sawing shorter stock or making tight curved cuts are best performed using less tension.

1. Adjust the blade tension by turning handwheel (A) Fig.12, use the blade tension indicator (B) Fig.12 located on the inside of the upper blade cover as reference. The higher the number, the higher the blade tension. Next adjust blade tracking if the blade width is different.

Blade Tracking Adjustment

1. Open the upper blade cover and turn the upper blade wheel by hand, at the same time, look through the blade tracking window (side of frame) and check the position of the blade on the wheel as it turns.
2. If the saw blade is not tracking properly, loosen the fixed handle (C) Fig.11 and turn blade tracking adjustment knob (B) (1/2 turn increments) clockwise if the blade moves towards the front of the wheel or counterclockwise if the blade moves towards the back edge of the wheel. Once the blade is tracking properly, tighten the fixed handle.

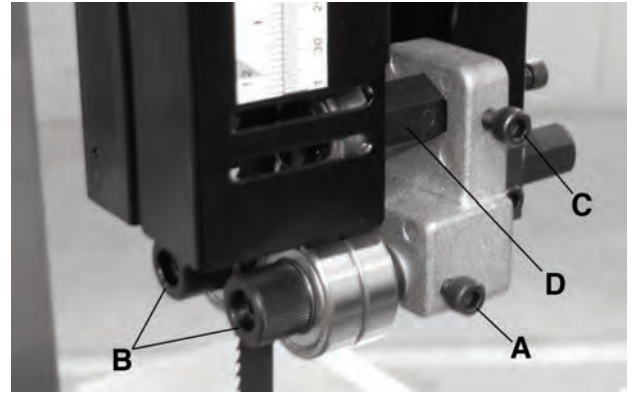


FIGURE 9

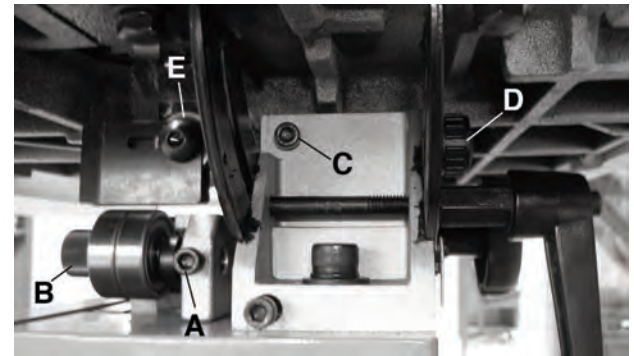


FIGURE 10

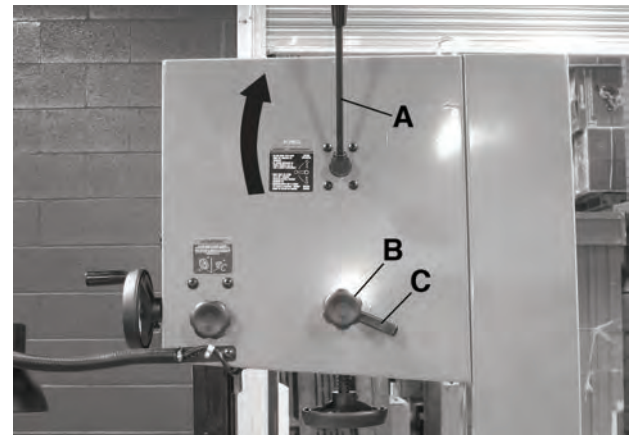


FIGURE 11

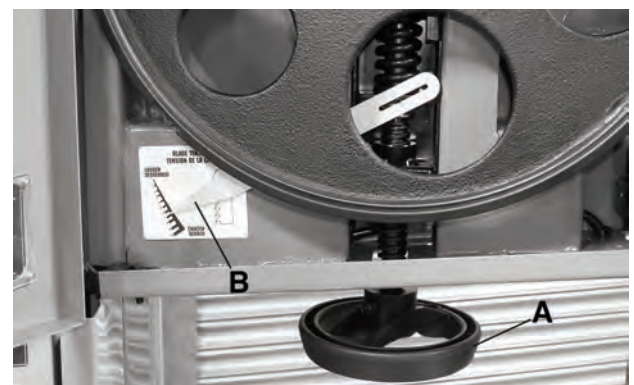


FIGURE 12

ADJUSTMENTS & OPERATION



CHANGING BLADES

Readjusting the Upper and Lower Blade Guide Assemblies

Note: Make sure blade is tensioned and tracking properly before adjusting the upper or lower blade guide assemblies.

1. Adjust the upper ball bearing guides (A) Fig.13 as far forward as possible to the blade gullets (B). Adjust the upper ball bearing guides to within 0.004" on both sides of the blade, loosen cap screws (A) Fig.9 on both sides, turn both cap screws (B) Fig.9 to bring the ball bearings towards the blade until there is a 0.004" gap. Retighten cap screws.
2. Do not set the bearings too close, as friction generates heat, which may have an adverse effect on the bearings and the saw blade as well. Fig.9 shows the upper bearing blade guide assembly properly adjusted.
3. Adjust the upper back-up bearing by loosening cap screw (C) Fig.9, position the upper back-up ball bearing approx. 0.016" at the rear of the blade. Retighten cap screw.
4. The adjustment of the lower ball bearing guides (found underneath the table) get adjusted in the same manner as described above.
5. To adjust the lower thrust bearing (E) Fig.10, loosen cap screw (C), turn the position adjusting knob (D) to move the lower thrust bearing (E) towards blade until it is approx. 0.016" at the rear of the blade. Retighten cap screw.

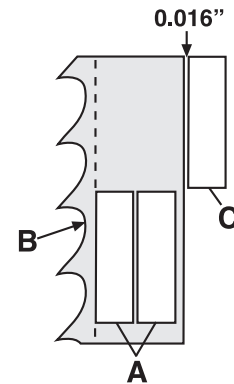


FIGURE 13

CHANGING FROM "WOOD CUTTING" MODE TO "METAL CUTTING" MODE

Depending on the desired cutting application, this bandsaw can be set for either "Wood Cutting" mode with a speed range of 540-3600 SFPM (with wood blade installed) or "Metal Cutting" mode with a speed range of 100-650 SFPM (with metal blade installed). This is done by changing the positioning and configuration of the belt(s).

Setting Drive Belt for WOOD CUTTING Mode

1. Loosen the drive belt tension by loosening the motor position lock handle (A) Fig.14. Lift the motor using the lifting handle (B) and retighten lock handle.
2. Only the long A44 drive belt (A) Fig.15 is required and gets installed on the main lower blade wheel pulley (B) and the large step of the motor drive pulley (C) as shown.
3. Loosen lock handle (A) Fig.14 and lower the the motor to tension the belt. Retighten the lock handle (A).

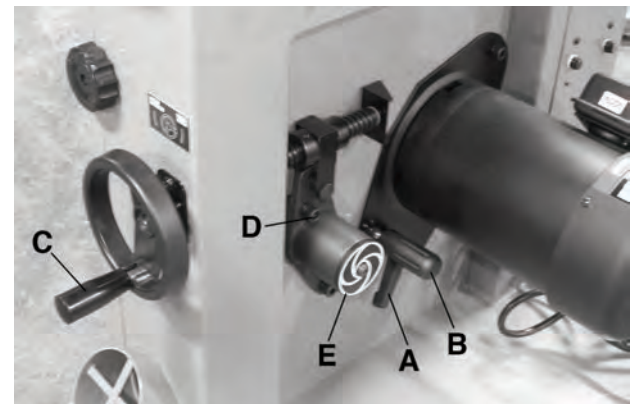


FIGURE 14

Setting Belts for METAL CUTTING Mode

1. Loosen the drive belt tension by loosening the motor position lock handle (A) Fig.14. Lift the motor using the lifting handle (B) and retighten lock handle.
2. First, the A44 drive belt (D) Fig.15 (long belt) gets installed on the main lower blade wheel pulley (E) and the inner small step of the idle pulley (F). It may be necessary to loosen cap screw (D) Fig.14 and the idle pulley tension handwheel (C) Fig.14 before installing a belt.
3. The A28 belt (G) Fig.15 (short belt) gets installed on the small step of the drive pulley (H) and the large step of the idle pulley (F).
4. Loosen lock handle (A) Fig.14 and lower the motor to tension the drive belt. Retighten lock handle (A).
5. Turn the idle pulley tension handwheel (C) Fig.14 clockwise to tighten belt tension. Squeeze the A28 belt (G) with your hand. The belt should not move more than 1/8". Readjust tension if needed, once correctly adjusted, retighten cap screw (D) Fig.14 to secure belt tension.

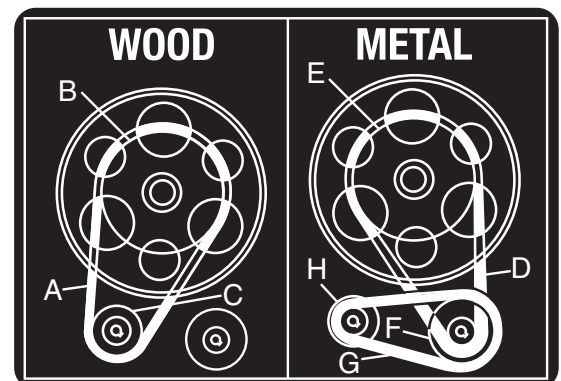


FIGURE 15



CONTROLS & OPERATION

CONTROLS

Digital Readout

In order for the digital readout (A) Fig.16 to indicate the correct speed range (Wood or Metal), press the "Selection" button (B). The corresponding mode "Wood" LED (C) or "Metal" LED (D) will light up when selected.

Variable Speed Control Dial

The variable speed control dial (E) Fig.16 adjusts the blade speed and can be adjusted before or during operation. Turn the dial clockwise to increase blade speed and counterclockwise to decrease blade speed.

Wood cutting speed range: 540-3600 SFPM (Sawing feet per minute)

Metal cutting speed range: 100-650 SFPM (Sawing feet per minute)

Metal Cutting Reference Chart

Refer to Fig.17 for recommended blade speeds, metal blade TPI (teeth per inch) and feed rate for the selected material to cut.

Turning Bandsaw ON/OFF

1. Insert the power switch key into the power switch (F) Fig.16. Turn the key to the ON position to get power to the machine.
2. Press the On button (G) Fig.16 to turn the motor on and start the cutting operation.
3. Press the STOP paddle (H) Fig.16 to stop the motor.
4. Before leaving the machine after use, turn the power switch key to the Off position.

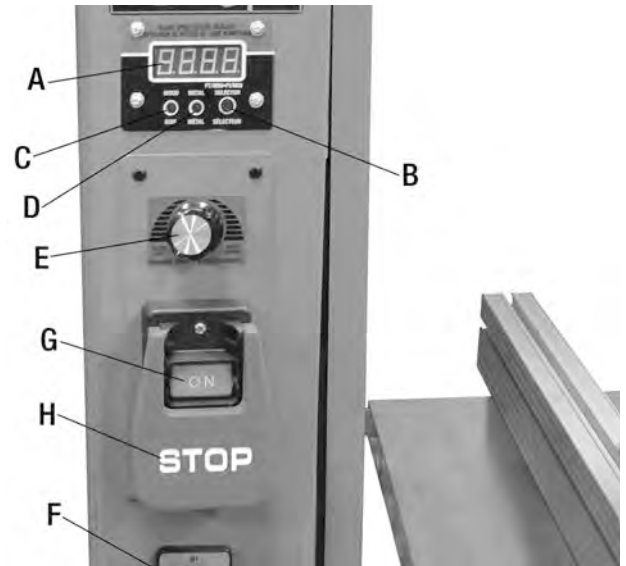


FIGURE 16

ADJUSTING THE HEIGHT OF THE UPPER BLADE GUIDE SYSTEM

The upper bearing blade guide system should always be set as close as possible to the workpiece (normally 1/8" to 1/4"). To adjust, loosen the blade guide system lock knob (A) Fig.18, then turn handwheel (B) to raise or lower the upper bearing blade guide system until it is at the required height.

MITER GAUGE ADJUSTMENT

1. Place the miter gauge in the table slot.
2. Loosen the lock handle on the miter gauge.
3. Adjust to the desired cutting angle on the miter gauge.
4. Tighten the lock handle.

DUST COLLECTION

It is recommended that this bandsaw be connected to a dust collector. This will avoid a dusty and undesired work environment. Dust collection hoses must be attached to the two 4" dust chutes using 4" steel clamps and then connected to a dust collector. A variety of dust collectors are available from King Canada, see your nearest King Canada products retailer.

Blade speed/ Vitesse de lame Material/Matériel	Feet/min./ Pieds/min.	Remark/ Remarque
Steel/ Acier	100 ~ 125	10-14 TPI. Low feed rate/ Alimentation lente
Mild steel/ Acier doux	150 ~ 250	5-10 TPI. Moderate feed rate/ Alimentation modérer
Cast iron (med)/ Fonte d'acier (med)	150 ~ 250	5-10 TPI. Moderate feed rate/ Alimentation modérer
Bronze	150 ~ 250	5-10 TPI. Moderate feed rate/ Alimentation modérer
Brass/ Cuivre	300 ~ 400	5-10 TPI. Moderate feed rate/ Alimentation modérer
Aluminum/ Aluminium	250 ~ 350	5-10 TPI. Moderate feed rate/ Alimentation modérer
Plastic/ Plastique	700 ~ 800	5-10 TPI. Moderate feed rate/ Alimentation modérer

FIGURE 17

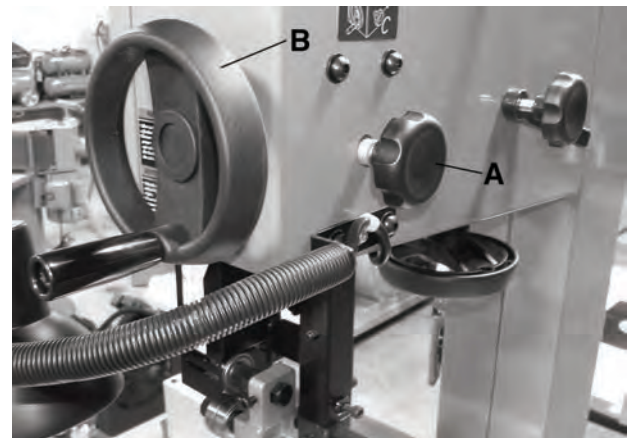


FIGURE 18

ELECTRICAL DIAGRAM

MODEL: KC-1700WM-VS

