



METAL CUTTING BANDSAWS



MODEL: KC-712BC



MODEL: KC-712S

INSTRUCTION MANUAL

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WARNING : FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. We strongly recommends that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you contact with us and we have advised you.

SAFETY RULES FOR ALL TOOLS

A. USER :

1. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties rings, bracelets, or other jewelry to get caught in moving parts. Nonslip foot wear is recommended. Wear protective hair covering to contain long hair.

2. **ALWAYS WEAR EYE PROTECTION.** Refer to ANSLZ 87.1 Standard for appropriate recommendations.

Also use face or dust mask if cutting operation is dusty.

3. **DON'T OVERREACH.** Keep proper footing and balance at all times.

4. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

5. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

6. **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drug, alcohol or any medication.

7. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY.** while motor is being mounted, connected or reconnected.

8. **ALWAYS** keep hands and fingers away from the blade.

9. **STOP** the machine before removing chips.

10. **SHUT - OFF** power and clean the **BAND SAW** and work area before leaving the machine.

B. USE OF MACHINE :

1. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on".

2. **DO'NT FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.

3. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

4. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and fress both hands to operate tool.

5. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

6. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.

7. **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.

8. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

9. **ADJUST AND POSITION** the blade guide arm before starting the cut.

10. **KEEP BLADE GUIDE ARM TIGHT.** A loose blade guide arm aill affect sawing accuracy.

11. **MAKE SURE** blade speed is set correctly for material being cut.

12. **CHECK** for proper blade size and type.

13. **STOP** the machine before putting material in the vise.

14. **ALWAYS** have stock firmly clamped in vise before starting cut.

15. **GROUND ALL TOOLS.** If tool is equipped with threeprong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a knonn ground. Never removed the third prong.

C. ADJUSTMENT:

MAKE all adjustments with the power off. In order to obtain the machine. precision and correct ways of adjustment while assembling, the user should read the detailed instruction in this manual.

D. WORKING ENVIRONMENT:

1. KEEP WORK AREA CLEAN.

Cluttered areas and benches invite accidents.

2. DON'T USE IN DANGEROUS

ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

3. KEEP CHILDREN AND VISITORS AWAY.

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

4. MAKE WORKSHOP CHILDPROOF

 with padlocks, master switches, or by removing starter keys.

E. MAINTENANCE

1. **DISCONNECT** machine from power source when making repairs.

2. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

3. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.

4. **MAKE SURE** that blade tension and blade tacking are properly adjusted.

5. **RE-CHECK** blade tension after initial cut with a new blade.

6. **TO RPOLONG BLADE LIFE ALWAYS** release blade tension at the end of each work day.

7. **CHECK COOLANT DAILY** Low coolant level can cause foaming and high blade temperatures.

Dirty or week coolant can clog pump, cause crooked. cust, low cutting rate and permanent blade failure.

Dirty coolant can cause the growth of bacteria with ensuing skin irritation.

8. **WHEN CUTTING MAGNESIUM NEVER** use sol-uble oils or emulsions(oil-water mix) as water will greatly intensify any accidental magnesium chip fire. See your industrial cool-

ant supplier for specific coolant recommendations when cutting magnesium.

9. **TO PREVENT** corrosion of machined surfaces when a soluble oil is used as coolant, pay particular attention to wiping dry the surfaces where fluid accumulates and does not evaporate quickly, such as between the machine bed and vise.

F. SPECTIFIED USAGE:

This machine is used only for general metals cutting within the range of cutting capacity.

G. NOIES:

A weighted sound pressure level:8C do.

H. SAFETY DEVICE:

1. Interlock switch on pulley cover.

as soon as the pulley cover is open, machine will stop with the function of this switch. Do not remove this switch from machine for any reason, and check it's function frequently.

2. Interlock switch on cutting area as soon as the cover of cutting area is open, machine will stop at once witch the function of this switch. Do not remove this switch from machine for any reason, and check it's function frequently.

I. TRANSPORTATION OF

MACHINE:

As this machine weghts 310 kg.

It is recommended that the machine shall be transported, with help of lifting jack.

Transportation Recommendation:

1. Tighten all locks before operation.

2. **ALWAYS** Keep proper footing & balance while moving this 300kgs machine, and only use heavy duty fiber belt to lift the machine as per Fig.

3. **TURN OFF** the power before wiring, & be sure machine in proper grounding. Overload & circuit braker is recommended for safety wiring.

4. Tighten 4 bolts to base holes after machine in balance.

5. **CHECK** carefully if main shaft in clockwise direction while running test., if not, reverse the wiring per circuit diagram, then, repeat the test till spindle direction is correct.

6. **KEEP** machine always out from sun, dust, wet, raining area.

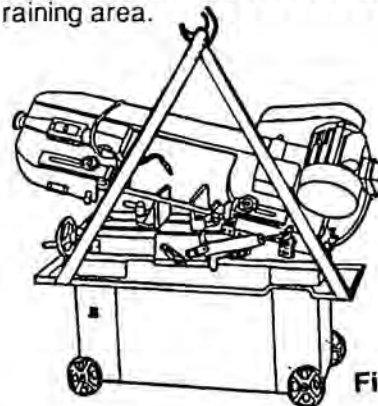


Fig. A

CAUTION :

READ ALL INSTRUCTION CAREFULLY BEFORE USING THIS MACHINE. SAVE THIS MANUAL.

SPECIFICATIONS :

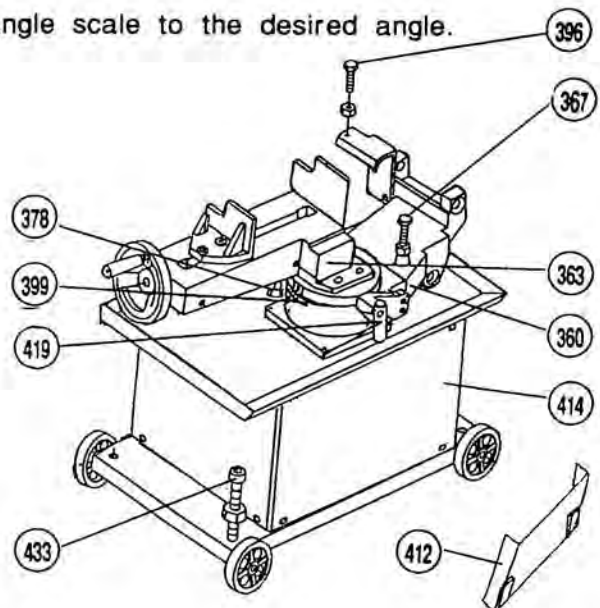
MODEL NO.		KC-712BC	KC-712S
CUTTING CAPACITY			
90°	○ mm	178	180
	□ mm	178 x 305	180 x 215
+ 45°	○ mm	115	100
	□ mm	115 x 180	95 x 140
- 45°	○ mm		
	□ mm		

HOW TO OPERATE THE SWIVEL CUTTING

1. Loosen the leaf screw.
2. Move the swivel bow by the hand, watch the angle scale to the desired angle.
3. Lock the leaf screw.
4. Adjust cylinder volumn, and start cutting.

MAIN PARTS OF KC-712S:

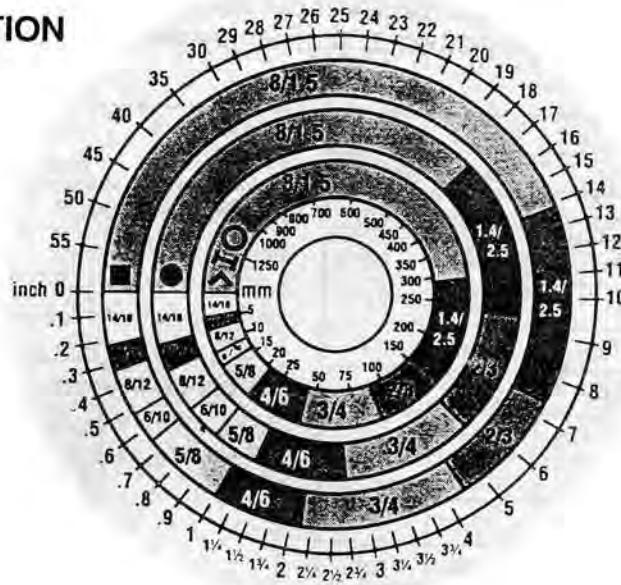
- 360 Swivel arm
- 363 Vise base
- 367 Stop Screw (for cutting)
- 378 Leaf screw
- 396 Stop screw (for bow)
- 399 Angle scale
- 412 Splash board
- 414 Stand
- 419 Angle positioning bracket
- 433 Balance screw



MAKE PROPER TOOTH SELECTION

For maximum cutting efficiency and lowest cost per cut, it is important to select the blade with the right number of teeth per inch (TPI) for the material being cut. The material size and shape dictate tooth selection.

TOOTH SELECTION



You need to consider :

The width of the cut. That is, the distance in the cut that each tooth must travel from the point it enters the workpiece until it leaves the workpiece, and

1. The shape of the workpiece.

- **Squares, Rectangles, Flats (Symbol : ■)**

Locate the width of cut on the chart. (Inches on the outer circle and millimeters on the inner circle.) Select the tooth pitch on the ring marked with the square shape which aligns with the width of cut.

EXAMPLE : 6" (150mm) square, use a 2/3 Vari-Tooth.

- **Round Solids (Symbol : ●)**

Locate the diameter of your workpiece on the chart. Select the tooth pitch on the ring marked with the round shape which aligns with the size of stock you are cutting.

EXAMPLE : 4" (100mm) round, use a 3/4 Vari-Tooth.

- **Tubing, Pipe, Structurals (Symbol : ○ H Λ)**

Determine the average width of cut by dividing the area of the workpiece by the distance the saw blade must travel to finish the cut. Locate the average width of cut on the chart. Select the tooth pitch on the ring marked with the tubing and structural shape which aligns with the average width you are cutting.

EXAMPLE : 4" (100mm) outside diameter, 3" (75mm) inside diameter tubing.

$$4" (100\text{mm})\text{OD} = 12.5 \text{ sq.in. (79cm}^2)$$

$$- 3" (75 \text{ mm}) \text{ID} = 7.0 \text{ sq.in. (44cm}^2)$$

$$\text{Area} = 5.5 \text{ sq.in. (35cm}^2)$$

$$\frac{5.5 \text{ sq.in. (35cm}^2)}{4" (100\text{mm}) \text{ distance}} = 1.38 (35\text{mm}) \text{ average width}$$

1.38" (35mm), use a 4/6 Vari-Tooth

NOTE : The band speed and cutting rate recommendations presented on this chart are approximations and are to be used as a starting point for most applications. For exact sawing parameters consult your saw blade supplier.

BI-METAL SPEEDS AND FEEDS

These figures are a guide to cutting 4" (100mm) material (with a 3/4 Vari-Tooth) when using a cutting fluid.

Increase Band Speed : 15% When cutting 1/4" (6.4mm) material (10/14 Vari-Tooth)
 12% When cutting 3/4" (19 mm) material (6 /10 Vari-Tooth)
 10% When cutting 1-1/4" (32 mm) material (5 /8 Vari-Tooth)
 5 % When cutting 2-1/2" (64 mm) material (4 /6 Vari-Tooth)

Decrease Band Speed : 12% When cutting 8" (200mm) material (2/3 Vari-Tooth)

MATERIAL	ALLOY ASTM NO.	BAND SPEED	
		FT./MIN.	M/MIN.
Copper Alloy	173, 932	314	96
	330, 365	284	87
	623, 624	264	81
	230, 260, 272	244	74
	280, 464, 632, 655	244	74
	101, 102, 110, 122, 172	234	71
	1751, 182, 220, 510	234	71
	625, 706, 715, 934	234	71
	630	229	70
811	214	65	
Carbon Steel	1117	339	103
	1137	289	88
	1141, 1144	279	85
	1144 HI STRESS	279	85
	1030	329	100
	1008, 1015, 1020, 1025	319	97
	1035	309	94
	1018, 1021, 1022	299	91
	1026, 1513	299	91
	A36 (SHAPES), 1040	269	82
	1042, 1541	249	76
	1044, 1045	219	67
	1060	199	61
	1095	184	56
Ni-Cr-Mo Alloy Steel	8615, 8620, 8622	239	73
	4340, E4340, 8630	219	67
	8640	199	61
Tool Steel	E9310	174	53
	A-6	199	61
	A-2	179	55
	A-10	159	49
	D-2	90	27
H-11, H-12, H-13	189	58	

MATERIAL	ALLOY ASTM NO.	BAND SPEED	
		FT./MIN.	M/MIN.
Stainless Steel	420	189	58
	430	149	46
	410, 502	140	43
	414	115	35
	431	95	29
	440C	80	24
	304, 324	120	36
	304 L	115	35
	347	110	33
	316, 316L	100	30
	416	189	58

TELLTALE CHIPS

Chips are the best indicator of correct feed force. Monitor chip information and adjust feed accordingly.

Thin or powdered chips - increase feed rate or reduce band speed.



Burned heavy chips - reduce feed rate and/or band speed.



Curly silvery and warm chips - optimum feed rate and band speed.



BLADE DIRECTION OF TRAVEL

Be sure the blade is assembled to the pulleys such that the vertical edge engages the work piece first.

BLADE MOVEMENT

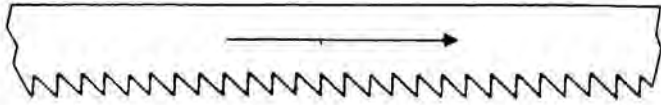


Figure 2. Blade Direction

STARTING SAW

CAUTION: NEVER OPERATE SAW WITHOUT BLADE GUARDS IN PLACE.

Be sure the blade is not in contact with the work when the motor is started. Start the motor, allow the saw to come to full speed, then begin the cut by letting the head down slowly onto the work. **DO NOT DROP OR FORCE.** Let the weight of the saw head provide the cutting force. The saw automatically shuts off at the end of the cut.

BLADE SELECTION

A 8-tooth per inch, general-use blade is furnished with this metal Cutting Band Saw. Additional blades in 4, 6, 8, and 10 tooth sizes are available. The choice of blade pitch is governed by the thickness of the work to be cut: the thinner the workpiece, the more teeth advised. A minimum of three (3) teeth should engage the workpiece at all times for proper cutting. If the teeth of the Blade are so far apart that they straddle the work, severe damage to the workpiece and to the blade can result.

CHANGING BLADE

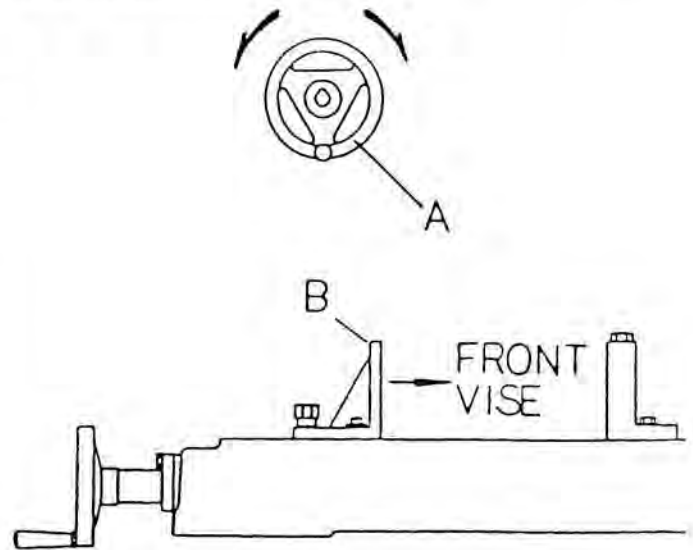
Raise Saw head to vertical position and open the blade guards. Loosen tension screw knob sufficiently to allow the saw blade to slip off the wheels. Install the new blade with teeth slanting toward the motor as follows:

1. Place the blade in between each of the guide bearings.
2. Slip the blade around the motor pulley (bottom) with the left hand and hold in position.
3. Hold the blade taut against the motor pulley by pulling the blade upward with the right hand which is placed at the top of the blade.
4. Remove left hand from bottom pulley and place it at the top side of the blade to continue the application on the upward pull on the blade.
5. Remove right hand from blade and adjust the position of the top pulley to permit left hand to slip the blade around the pulley using the thumb, index and little finger as guides.

6. Adjust the blade tension knob clockwise until it is just right enough so no blade slippage occurs. Do not tighten excessively.
7. Replace the blade guards.
8. Place 2-3 drops of oil on the blade.

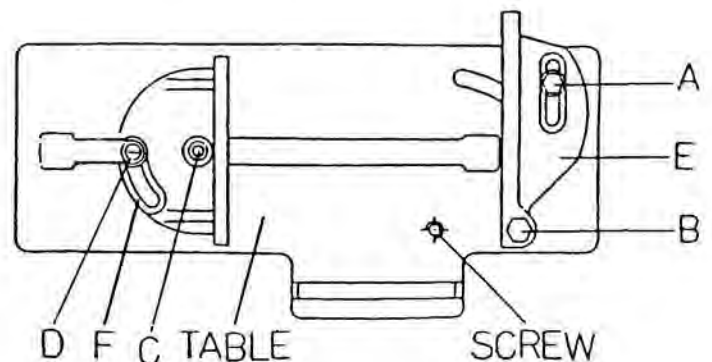
USAGE OF THE QUICK VISE

The workpiece is placed between the vise jaws with the amount to be cut-off extending out past the blade. Your machine is equipped with a "quick action" vise jaw which allows you to instantly position the moveable vise jaw (B). Simply turn hand-wheel (A) counterclockwise 1/2 turn and move the vise jaw (B) to the desired position. Then tighten the vise jaw (B) against the workpiece by turning hand-wheel clockwise.



QUICK VISE ADJUSTMENT FOR ANGLE CUT

1. Loosen the A. B. C. D. Screw.
2. Adjust rear vise to the threaded hole position. (E)
3. Set the scale to the desired angle.
4. Adjust the front vise (F) to parallel the rear vise (E).
5. Tighten the A. B. C. D. Screw.



BLADE GUIDE BEARING ADJUSTMENT

ATTENTION: This is the most important adjustment on your saw. It is impossible to get satisfactory work from your saw if the blade guides are not properly adjusted. The blade guide bearings on your metal Cutting Band Saw are adjusted and power tested with several test cuts before leaving the factory to insure proper setting. The need for adjustment should rarely occur when the saw is used properly. If the guides do get out of adjustment, though, it is extremely important to readjust immediately. If improper adjustment is maintained, the blade will not cut straight, and if the situation is not corrected it will cause serious blade damage.

Because guide adjustment is a critical factor in the performance of your saw, it is always best to try a new blade to see if this will correct poor cutting before beginning to adjust. If a blade becomes dull on one side sooner than the other, for example, it will begin cutting crooked. A blade change will correct this problem the guide adjustment will not. If a new blade does not correct the problem, check the blade guides for proper spacing.

NOTE: There should be from 000 (just touching) 001 clearance between the blade and guide bearings. to obtain this clearance adjust as follows:

1. The inner guide bearing is fixed and cannot be adjusted.
2. The outer guide bearing is mounted to an eccentric bushing and can be adjusted.
3. Loosen the nut while holding the bolt with an Allen wrench.

4. Position the eccentric by turning the bolt to the desired position of clearance.
5. Tighten the nut.
6. Adjust the second blade guide bearing in the same manner.

BLADE GUIDE BEARING ADJUSTMENT

REMARK:

1. Adjust the tension of blade until the back of the blade(A) against the blade wheel (front) lightly.
2. Be sure the nut(B) is tightened.
3. Turn the eccentric shaft(C) counterclockwise, when the bearing(D) touches the saw blade properly, tighten the nut(E).
4. To adjust, loosen set screw(F) and move the bearing(D) up or down until it lightly touches the back of the blade(A).
5. Repeat 1, 2, 3, and 4 steps to adjust the other side's blade guide bearings(G).
6. Correct the base and blade to be a vertical position with a scale. If necessary, loosen set screw(F).
7. Set down the blade frame, correct the jaw vise(H) and blade to be a vertical position with a scale then tighten the set screws (I).
8. Loosen set screw (K), move front jaw vise (J) to against rear jaw vise(H) tightly. Finish correcting by tightening set screw(K).

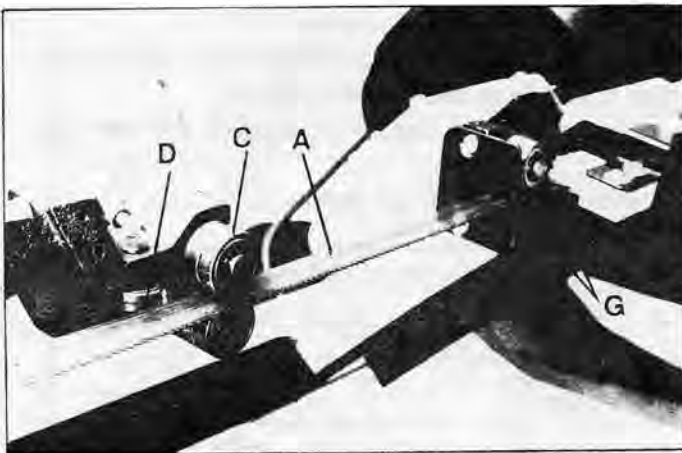


Fig. 1

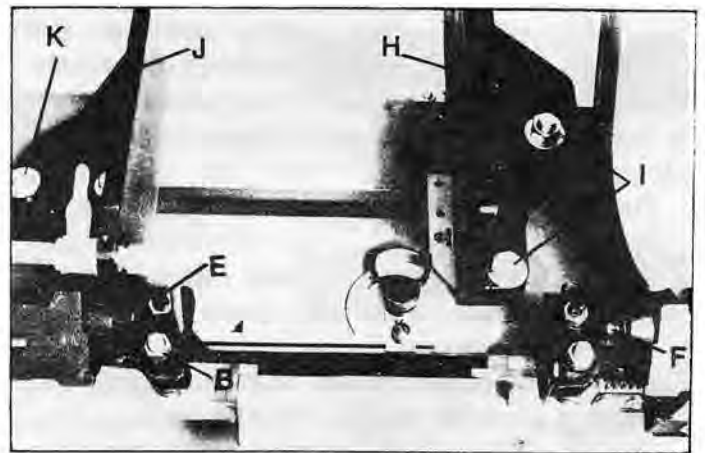


Fig. 2

BLADE TRACK ADJUSTMENT

1. Open the blade guard.
2. Remove the blade guide assemblies (top and bottom)
3. Loosen the hex head screw in the tilting mechanism to a point where it is loose but snug.
4. With the machine running, adjust both the set screw and blade tension knob simultaneously to keep constant tension on the blade. The set screw and blade tension knob are always turned in opposite directions, ie, when one is turned clockwise the other is turned counterclockwise. The blade is tracking properly when the back side just touches the shoulder of pulley or a slight gap appears near the center line of the pulley. Care should be taken not to overtighten the saw blade since this will give a false adjustment and limit life of the blade.
5. Tighten the hex head screw in tilting mechanism. **IMPORTANT:** Sometimes in trying to make this critical adjustment it is possible to cause the basic setting to be misaligned. Should this occur, proceed as follows:
 - a. Loosen the set screw and back it out as far as it can go and still remain in the threaded hole.
 - b. Turn the hex head screw clockwise until it stops (do not tighten).
 - c. Turn the set screw clockwise until it bottoms, then continue for half a turn and check the tracking by turning on the machine.
 - d. If further adjustment is required, go back to step 4.
6. Turn off power to the machine.
7. Replace the blade guide assemblies--it may be necessary to loosen the blade tension slightly.
8. Adjust the vertical position of blade guide bearing assemblies so that the back side of the blade just touches the ball bearing.
9. Make a final run to check tracking. If required, touch up adjustment (See step 4)
10. Replace the blade guards.

MAINTENANCE

CAUTION: MAKE CERTAIN THAT THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT.

LUBRICATION

Lubricate the following components using SAE-30 oil as noted.

1. Ball-bearing none.
2. Driven pulley bearing 6-8 drops a week.
3. Vise lead screw as needed.
4. The drive gears run in an oil bath and will not require a lubricant change more often than once a year, unless the lubricant is accidentally contaminated or a leak occurs because of improper replacement of the gear box cover. During the first few days of operation, the worm gear drive will run hot. Unless the temperature exceeds 200F., there is no cause for alarm.

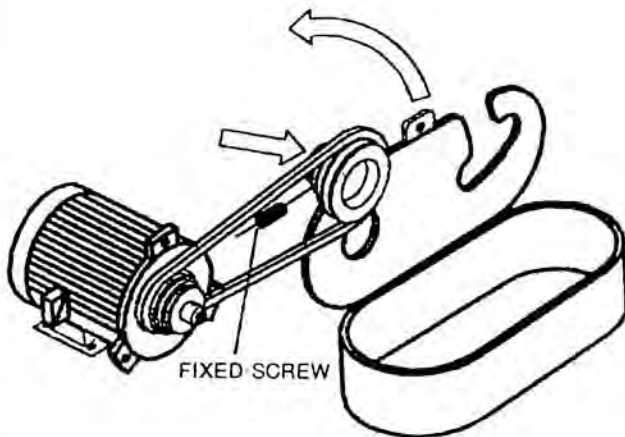
The following lubricants may be used for the gear box:

Atlantic Refinery Co. Mogul Cyl. Oil
Cities Service Optimus No. 6
Gulf Refinery Co Medium Gear Oil
Pure Oil Co. Park Clipper

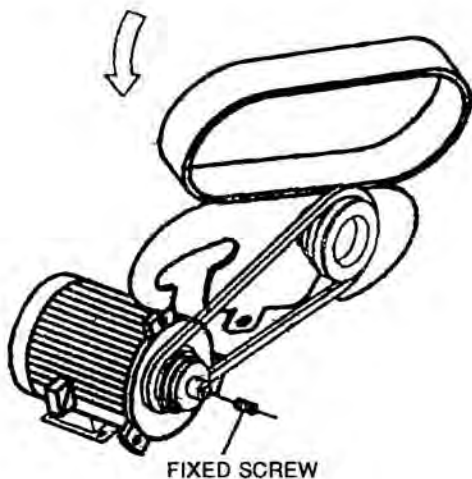
TROUBLE SHOOTING CHART

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Excessive Blade Breakage	<ol style="list-style-type: none"> 1. Incorrect blade tension 2. Incorrect speed or feed 3. Material loose in vise 4. Blade rubs on wheel flange 5. Teeth too coarse for material 6. Teeth in contact with work before saw is started 7. Misaligned guides 8. Blade too thick for wheel diameter 9. Cracking at weld 	<ol style="list-style-type: none"> 1. Adjust to where blade just does not slip on wheel 2. Check Machinist Handbook 3. Clamp work securely 4. Adjust wheel alignment 5. Check Machinist Handbook for recommended blade type 6. Place blade in contact work after motor is started 7. Adjust 8. Use thinner blade 9. Make longer annealing cycle
Permatute Blade Dulling	<ol style="list-style-type: none"> 1. Teeth too coarse 2. Too much speed 3. Inadequate feed pressure 4. Hard spots or scale in/on material 5. Work hardening of material (especially stainless steel) 6. Blade installed backwards 7. Insufficient blade tension 	<ol style="list-style-type: none"> 1. Use finer tooth blade 2. Try next lower speed 3. Decrease spring tension on side of saw 4. Reduce speed increase feed pressure (Scale) Increase feed pressure (Hard Spots) 5. Increase feed pressure by reducing spring tension 6. Remove blade twist inside out and reinstall blade. 7. Increase tension to proper level
Bad Cuts (Crooked)	<ol style="list-style-type: none"> 1. Work not square 2. Feed pressure too great 3. Guide bearing not adjusted properly 4. Inadequate blade tension 5. Blade guides spaced out too much 6. Dull blade 7. Speed incorrect 8. Blade guide assembly loose 9. Blade guide bearing assembly loose 10. Blade tracks too far away from wheel flanges 	<ol style="list-style-type: none"> 1. Adjust vise to be square with blade Always clamp work tightly in vise. 2. Reduce pressure by increasing spring tension on side of saw. 3. Adjust guide bearings to .001 greater than max. thickness, including weld of the saw 4. Increase blade tension a little at a time 5. Move guides as close to work as possible 6. Replace blade 7. Check manual for recommended speeds 8. Tighten 9. Tighten 10. Retrack blade according to operating instructions
Bade cuts (Rough)	<ol style="list-style-type: none"> 1. Too much speed or feed 2. Blade is too coarse 	<ol style="list-style-type: none"> 1. Reduce speed and feed 2. Replace with finer blade
Blade is twisting	<ol style="list-style-type: none"> 1. Cut is binding blade 2. Too much blade tension 	<ol style="list-style-type: none"> 1. Decrease feed pressure 2. Decrease blade tension
Unusual Wear on Side/Back of Blade	<ol style="list-style-type: none"> 1. Blade guides worn 2. Blade guide bearings notad-justed properly 3. Blade guide bearing bracket is loose 	<ol style="list-style-type: none"> 1. Replace 2. Adjust as per operators manual 3. Tighten
Feeth Ripping from blade	<ol style="list-style-type: none"> 1. Tooth Too coarse for work 2. Too heavy feed; too slow feed 3. Vibrating work piece 4. Gullets loading 	<ol style="list-style-type: none"> 1. Use finer tooth blade 2. Increase feed pressure and/or speed 3. Clamp work Securely 4. Use coarse tooth blade or brush to remove chips
Motor Running too Hot	<ol style="list-style-type: none"> 1. Blade tension too high 2. Drive belt tension too high 3. Blade is too coarse for work (Pipes especially) 4. Blade is too fine for work (Heavier, soft material) 5. Gear not aligned properly 6. Gears need lubrication 7. Idler wheel needs lubrication 	<ol style="list-style-type: none"> 1. Reduce tension on blade 2. Reduce tension on drive belt 3. Use finer blade 4. Use coarser blade 5. Adjust gears so that worm is in center of gear 6. Check oil bath 7. Oil bearing/shaft on idler wheel

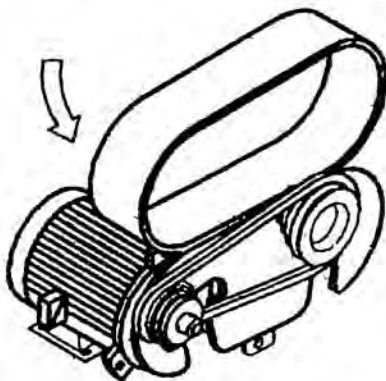
INSTALLATION STEPS FOR PLASTIC BELT COVER



OPEN PLASTIC MOULDED BELT COVER. INLAY THE LEFT INDENTATION TO THE BOTTOM OF THE PULLEY. IF THE GAP IS TOO SMALL. LOOSE THE FIXING SCREWS OF PULLEY. THEN, MOVE THE PULLEY OUT SLIGHTLY, IT WILL BE VERY EASY TO SET IN.



TURN THE BELT COVER WITH THE DIRECTION OF COUNTERCLOCKWISE, WHICH ENABLE THE INDENTATION SET INTO THE PULLEY. IF THE GAP IS TOO SMALL. LOOSE THE FIXING SCREWS OF PULLEY, AND MOVE THE PULLEY OUT SLIGHTLY, THEN, IT WILL BE EASY TO SET IN.



INLAY THE LEFT INDENTATION COMPLETELY TO THE PULLEY. ADJUST THE PULLEY AT THE SAME LEVEL SURFACE, THEN, FIX ALL RELATED SCREWS.

ASSEMBLY

A 1/2 or 3/4 HP, 1725 motor, split phase or capacitor-start, is recommended for best economical performance. Counterclockwise rotation is required. Note that rotation can be reversed by following directions given on terminal or nameplate.

1. Assemble the motor Mounting plate to the head using the long bolt. Note that the flat side of the plate faces up.
2. Assemble the guard plate to the Head using the screw and Lock Washer and the Carriage Bolt. Washer and Wing Nut are used to secure the Motor Mounting plate to the Guard plate through the slotted hole in the Guard plate. These components also serve to position and lock the motor in place for proper speed/belt adjustment.
3. Place the spacer over the long Bolt and secure it with the nut.
4. Secure the Motor to the Motor Mounting plate with the four bolts and nuts. Note, that the motor shaft is placed through the large opening in the Guard plate and must be parallel with the drive Shaft.
5. Assemble the Motor Pulley, the smaller of the two provided, to the motor shaft. Note, the larger diameter must be closest to the motor. Do not tighten the set screw.
6. Assemble the Driven Pulley, the larger of the two provided, to the protruding drive Shaft. Note the small diameter must be closest to the bearing. Do not tighten the set screw.
7. Place the belt into one of the pulley grooves and the other end into the respective grooves of the second pulley.
8. Line up the belt and both pulleys such that the Belt is running parallel in the pulley grooves.
9. Tighten the set screws of both pulleys in this position.
10. Place the belt into proper pulley combination for proper blade speed. See material cutting Chart.
11. Adjust the position of the Motor to obtain approximately 1/2" depression in the belt when applying pressure with your thumb.
12. Tighten the head screw Holding the Motor Mounting plate to the Guard plate.
13. Connect the Electrical Harness to the motor terminal box. The motor should be protected with a time delay fuse or circuit breaker with a rated amperage slightly greater than the full-load amperage of the motor (see Figure 1).

INSTALLATION

The saw may be mounted on your own bench or stand. The rear end of the arc must be mounted flush with the rear of the stand or bench to permit vertical operation for this band saw. A Steel your dealer for this band saw. This stand has punched holes to effect easy assembly to the base using eight standard bolts.

OPERATION

WORK SET UP

1. Raise the saw head to vertical position.
2. Open vise to accept the piece to be cut by rotating the wheel at the end the base.
3. Place workpiece on saw bed. If the piece is long, support the end.
4. Clamp workpiece securely in vise.

WORK STOP ADJUSTMENT

1. Loosen the thumb screw holding the work stop casting to the shaft.
2. Adjust the work stop casting to the desired length position.
3. Rotate the work stop to as close to the bottom of the cut as possible.
4. Tighten thumb screw.
5. **DO NOT ALLOW** the blade to rest on the work while the motor is shut off.

CONVERTING FOR VERTICAL USE

Notching, slitting, contour work may be done with the saw in the vertical position in the following manner:

1. Rotate the head to the vertical position.
2. Assemble a 10" x 10" table (an option that may be purchased from your dealer to the guide bar using the screws provided and the guide bar knob.

BLADE SPEEDS

When using your Band saw always change the blade speed to best suit the material being cut. The material Cutting Chart gives suggested settings for several materials.

MATERIAL CUTTING CHART

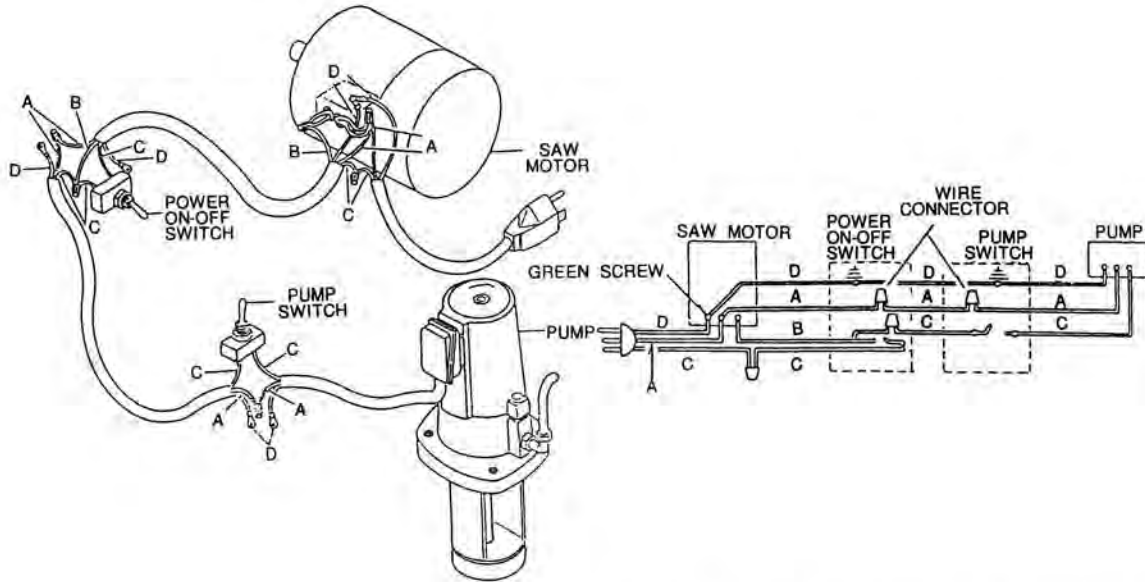
Material	Speed F.P.M.				Belt Groove Used	
	60Hz		50Hz		Motor Pulley	Saw Pulley
	A	B	A	B		
Tool, Stainless Alloy Steels Bearing Bronze	85	98	70	81	Small	Largest
Medium to High Carbon Steels Hard Brass or Bronze	130	164	110	135	Medium	Large
Low to Medium Carbon Steels Soft Brass	180	246	150	203	Large	Medium
Aluminum Plastic	235	328	195	270	Largest	Small

※ A: For 712BC With carbon blade

※ B: For 712S, 712BC with Bi-Metal blade.

WIRING DIAGRAM TOGGLE SWITCH SINGLE PHASE

KC-712BC

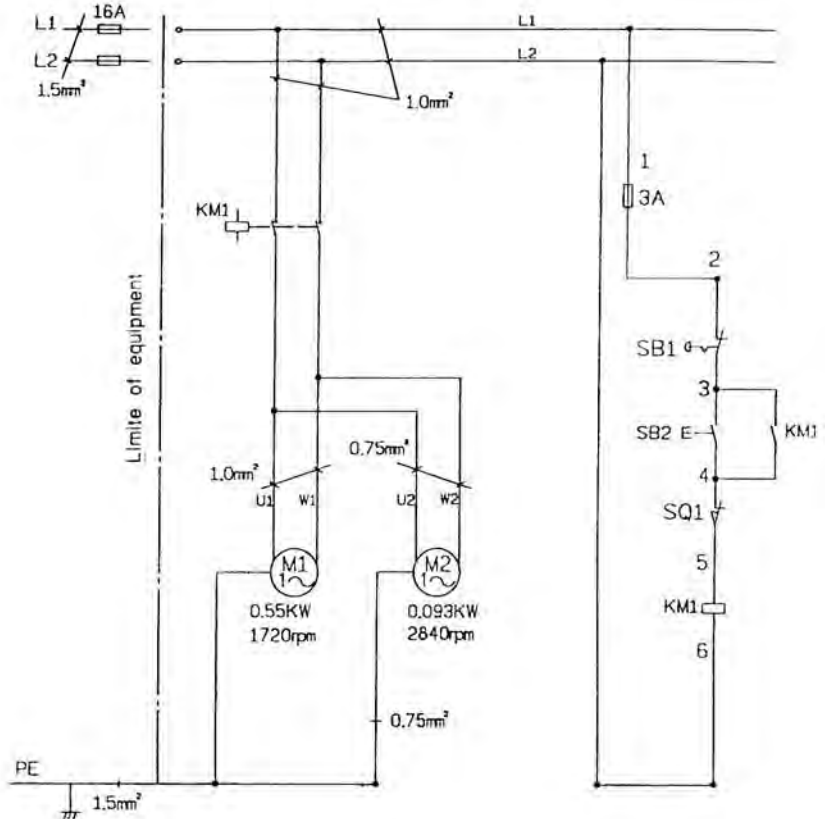


COLOR	REF NO.	A	B	C	D
50		BLUE	BLACK	BROWN	YELLOW GREEN
60		WHITE	RED	BLACK	GREEN

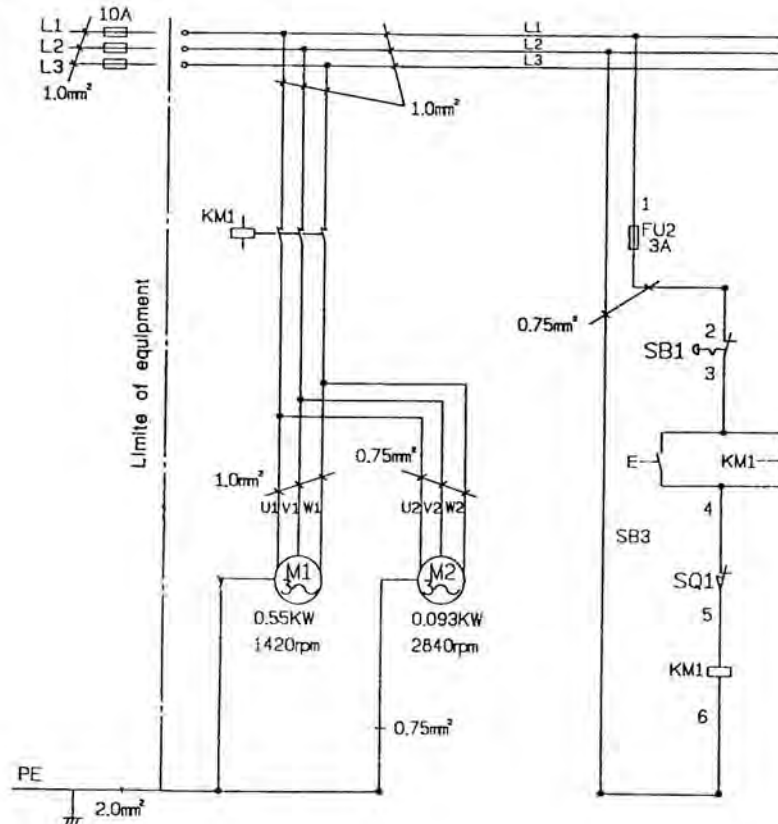
WIRING DIAGRAM EMERGENCY SWITCH

KC-712S

SINGLE PHASE 1 ϕ



THREE PHASE 3 ϕ



PARTS DIAGRAM & PARTS LISTS

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