



CX103
7" x 12" HORIZONTAL AND VERTICAL
METAL CUTTING BAND SAW
User Manual



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GENERAL SAFETY INSTRUCTIONS

Extreme caution should be used when operating all power tools. Know your power tool, be familiar with its operation, read through the owner's manual and practice safe usage procedures at all times.

- ❖ **ALWAYS** read and understand the user manual before operating the machine.
- ❖ **CONNECT** your machine **ONLY** to the matched and specific power source.
- ❖ **ALWAYS** wear safety glasses respirators, hearing protection and safety shoes, when operating your machine.
- ❖ **DO NOT** wear loose clothing or jewelry when operating your machine.
- ❖ **A SAFE ENVIRONMENT** is important. Keep the area free of dust, dirt and other debris in the immediate vicinity of your machine.
- ❖ **BE ALERT! DO NOT** use prescription or other drugs that may affect your ability or judgment to safely use your machine.
- ❖ **DISCONNECT** the power source when changing drill bits, hollow chisels, router bits, shaper heads, blades, knives or making other adjustments or repairs.
- ❖ **NEVER** leave a tool unattended while it is in operation.
- ❖ **NEVER** reach over the table when the tool is in operation.
- ❖ **ALWAYS** keep blades, knives and bits sharpened and properly aligned.
- ❖ **ALL OPERATIONS MUST BE** performed with the guards in place to ensure safety.
- ❖ **ALWAYS** use push sticks and feather boards to safely feed your work through the machine.
- ❖ **ALWAYS** make sure that any tools used for adjustments are removed before operating the machine.
- ❖ **ALWAYS** keep the bystanders safely away while the machine is in operation.

CX103 – 7”x12” Horizontal & Vertical Band Saw

SAFETY INSTRUCTIONS

- ⊠ **CX103** is designed to cut metal only.
- ⊠ **ALWAYS** inspect the blade for any crack or missing teeth before operating the band saw.
- ⊠ **ALWAYS** ensure that the blade tension is properly set for the type and width of blade installed.
- ⊠ **NEVER** place your fingers or hands in the line of cut. If you slip, your hands or fingers may come into contact with the blade.
- ⊠ **ALL THE GUARDS** must be in place while operating the band saw to ensure safety.
- ⊠ **ALWAYS** feed the stock smoothly. Do not force or twist the work-piece while cutting.
- ⊠ **MAKE SURE** before making any adjustments, the switch is in the “OFF” position and the cord is un-plugged.
- ⊠ **NEVER LEAVE** the band saw unattended while it is running.
- ⊠ **DO NOT** attempt to remove jammed pieces unless the band saw has come to a complete stop and the power switch has been turned to the **OFF** position.
- ⊠ **NEVER** turn **ON** the band saw if the blade is in contact with your stock.
- ⊠ **ALWAYS** make certain that the bearings are properly adjusted to guide the blade.
- ⊠ **MAINTAIN AND SERVICE** your band saw regularly as instructed in the user manual.
- ⊠ **MAKE SURE** you have read and understood all the safety instructions in the manual and you are familiar with your band saw, before operating the CX103. If you fail to do so, serious injury could occur.

WARNING

The safety instructions given above can not be complete because the environment in every shop is different. Always consider safety first as it applies to your individual working conditions.



CX103 – Horizontal & Vertical Band Saw

FEATURES

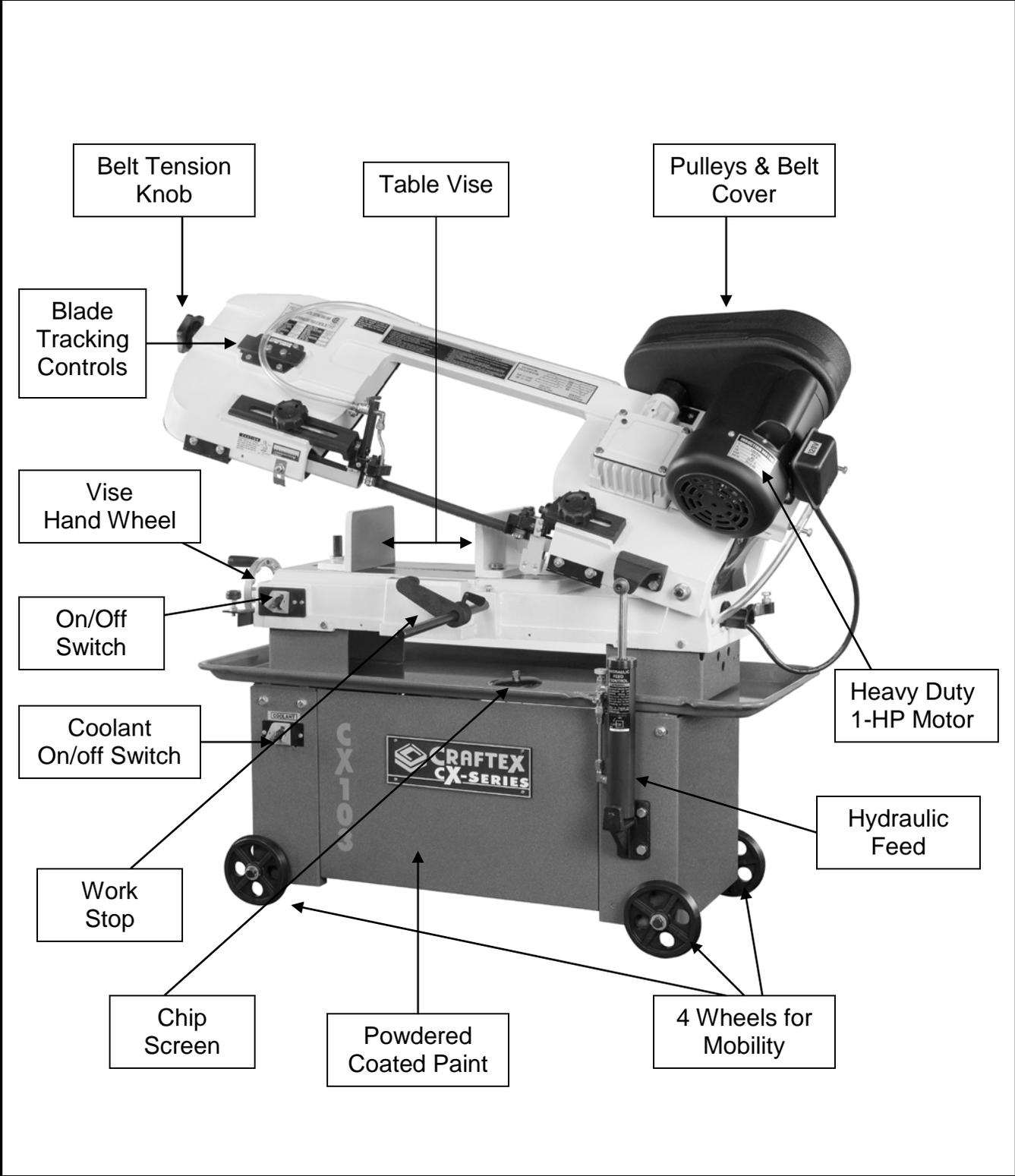
MODEL CX103 – 7”x12” HORIZONTAL & VERTICAL BAND SAW

As part of the growing line of Craftex metalworking equipment, we are proud to offer CX103 -7” x 12” Horizontal and Vertical Band Saw. The Craftex name guarantees Craft Excellence. By following the instructions and procedures laid out in this owner’s manual, you will receive years of excellent service and satisfaction. The CX103 is a professional tool and like all power tools, proper care and safety procedures should be adhered to.

- ❖ Motor 1HP, 110V, Single Phase, Sealed Worm Gear Transmission
- ❖ Capacity @ 90° 7” x 12” Rectangular, 7” Round
- ❖ Blade Speed 86 – 132 – 178 – 260 FPM
- ❖ Gear Box Oil Bath
- ❖ Hydraulic Down Feed with Auto Shut Off
- ❖ Blade Size 3/4” x 0.32” x 93”
- ❖ Vise Swings to 45°
- ❖ Heavy Cast Iron Table Yes
- ❖ Powdered Coated Paint Yes
- ❖ 4 wheels for Mobility Yes
- ❖ Coolant Pump Yes
- ❖ Approximate Weight 160 Kg
- ❖ Warranty 3 Years

CX103 – 7”x12” Horizontal & Vertical Band Saw

PHYSICAL FEATURES



SETUP

Before setting up your machine you need to read and understand the instructions given in this manual.

The unpainted surfaces of this band saw are coated with rust prevention waxy oil and you will want to remove this before you begin assembly. Use a solvent cleaner that will not damage painted surfaces.



WARNING

CX103 is a very heavy machine, do not over-exert yourself. For safe moving method use fork truck or get the help of an assistant or friend.

UNPACKING

The machine is properly packaged and is shipped completely in a crate for safe transportation. When unpacking, carefully inspect the crate and ensure that nothing has been damaged during transit. Open the crate and check that the machine is in good condition.

Remove the bolts securing the saw on the skid and place it on a level surface.

List of Contents

Qty

A. Saw.....	1
B. Belt Cover.....	1
C. Wheels.....	4
D. Wheel Axle	2
E. Material Stop Bar	1
F. Material Stop.....	1
G. Hardware Bag ... (washers and screws)	

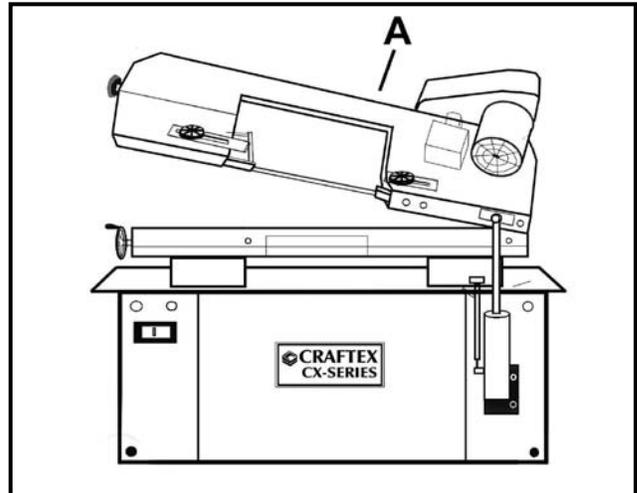


Figure-1 Inventory

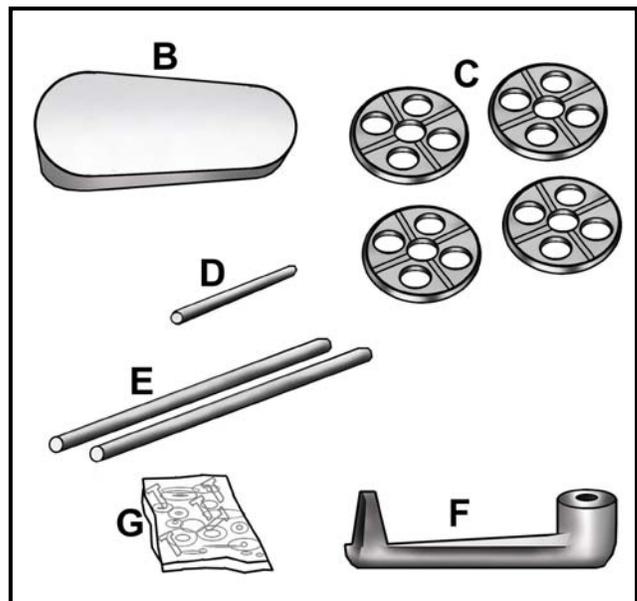


Figure-2 Inventory

PROPER GROUNDING

Grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

CX103 is equipped with a 110 single phase motor which features 3-conductor cord and 3-prong grounding plug to fit a grounded type receptacle. Make sure the cord is plugged into a properly installed and grounded power outlet.

To prevent electrical hazards, have a qualified electrician ensure that the line is properly wired.

This appliance is for use on a normal 110-volt circuit and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the appliance is connected to an outlet having the same configuration as the plug. If an adaptor plug is used, it must be attached to the metal screw of the receptacle.

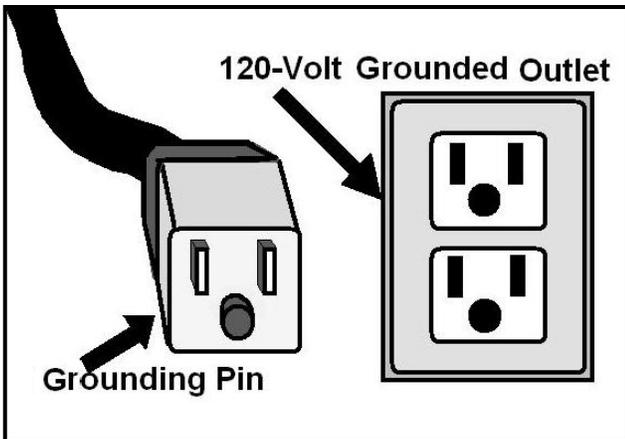
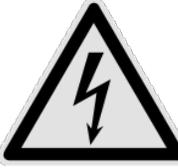


Figure-3 120-Volts Outlet for CX100



WARNING

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.

It is strongly recommended not to use extension cords with your CX103. Always try to position your machine close to the power source so that you do not need to use extension cords.

In case if you really find it necessary to use an extension cord, make sure the extension cord does not exceed 50-feet in length and the cord is 14-gauge to prevent motor damage.

Your CX103 is equipped with a cord having 3-prongs which fit 3 prong grounding receptacle as shown in figure-3. Do not remove the grounding prong to fit it into a 2-pronged outlet. Always check with a qualified electrician if you are in doubt.

ASSEMBLY

Wheels

To install the wheels place blocking under the ends of the saw base to allow wheel installation and make sure the saw is steady while temporarily supported.

Take the axle and slide it through the hole, located at the bottom part of your CX103 cabinet. Now attach the wheels on each side of the axle and secure them with pins. Bend the pins to hold it place. See figure-4.



Figure-4 Installing the wheels

Install the other two wheels in the same manner. Once all four wheels are installed, remove the blocking from under the base of the saw and make sure all the pins are properly tighten.

Work Stop

Insert the work stop rod through the hole in the bed of the saw and lock it in position with the hex bolt provided. See figure-5.

Now, take the work stop and slide it over the rod and secure it by tightening the thumb screw shown in figure-5.

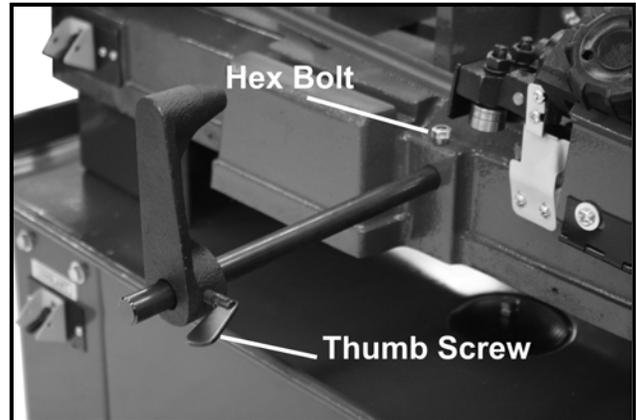


Figure-5 Installing the work stop

Motor Assembly

Attach the motor mounting plate to the head using the long bolt and make sure that the flat side of the plate is facing up.

Install the guard plate to the head, using the screw, lock washer and the carriage bolt. Attach the motor mounting plate to the guard plate through the slotted hole in the guard using screws and washers provided. These components also serve to position and lock the motor in place for proper speed/belt adjustment.

Now, install the motor to the motor mounting plate using four bolts and nuts and make sure the motor shaft is placed through the large opening in the guard plate and must be aligned with the drive shaft.

Motor & Drive Pulleys

Assemble the motor pulley to the motor shaft. Make sure that the small diameter must be closest to the motor and finger-tighten the set screw.

Assemble the drive pulley to the protruding drive shaft and make sure that the large diameter must be closest to the bearing and finger-tighten the set screw.

Belt Cover

Take the belt cover and slide it onto the pulleys, make sure the collar of the cover is slid on to the bottom part of the pulleys and secure it with screws and washers provided. See figure-6.

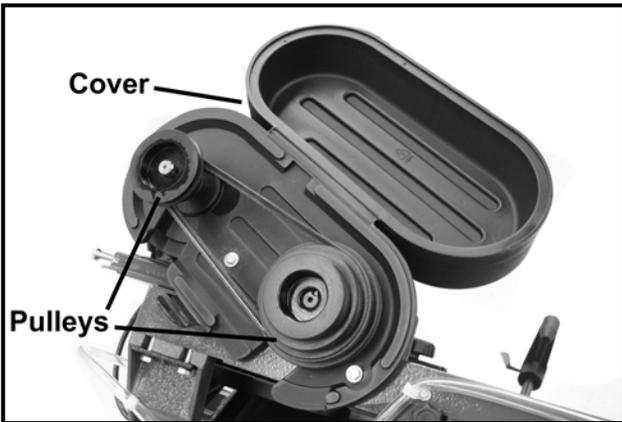


Figure-6 Installing the belt cover

Close the belt cover and secure it with the lock knob.

Installing the Belt

Place the belt into one of the pulley grooves and the other end into the respective grooves of the second pulley.

Line up the belt and both the pulleys in such a way that the belt is running parallel in the pulley grooves. See figure-7.

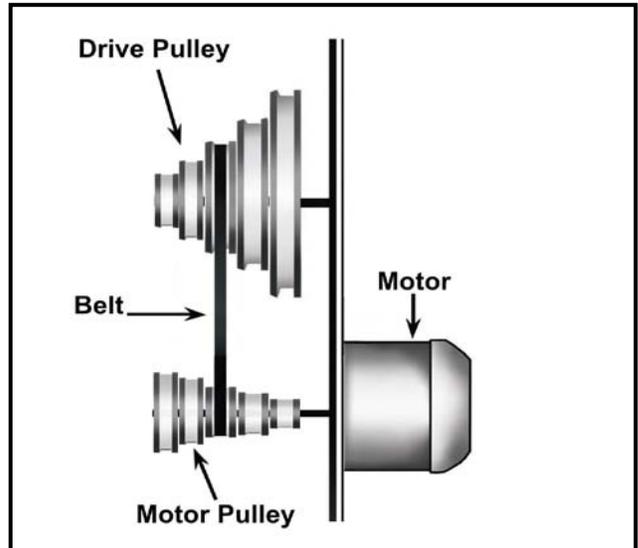


Figure-7 Belt and the pulleys

Properly tighten the set screws on both pulleys and place the belt into the proper pulley combination for proper blade speed. See material cutting chart on page-18.

Adjust the motor position to obtain approximately 1/2" depression in the belt when applying pressure with your finger. See figure-8.

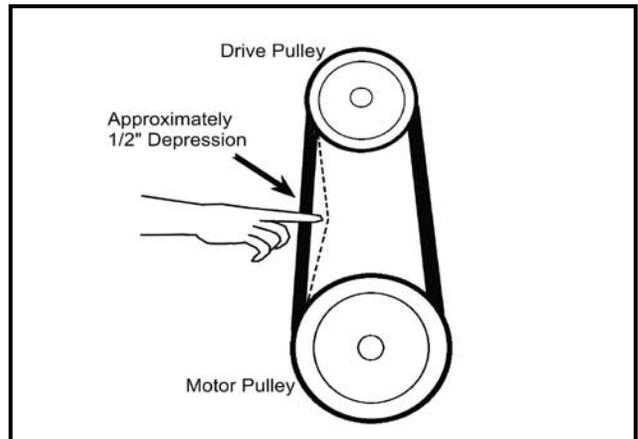


Figure-8 Belt tension

Tighten the head screw holding the motor mounting plate to the guard plate.

Vertical Cutting Table

CX103 can easily be set up for vertical use. Notching, Slitting and contour work maybe be done with CX103 in the vertical position.

Vertical cutting table is used on the band saw only in vertical cutting mode. When using the saw in horizontal position, make sure the cutting table is removed.

To install the vertical cutting plate:

1. Disconnect the band saw from power source.
2. Lift the saw arm to the vertical position and lock it in place by turning the hydraulic cylinder valve off.
3. Use a screw driver and remove the two screws as shown in figure-9.

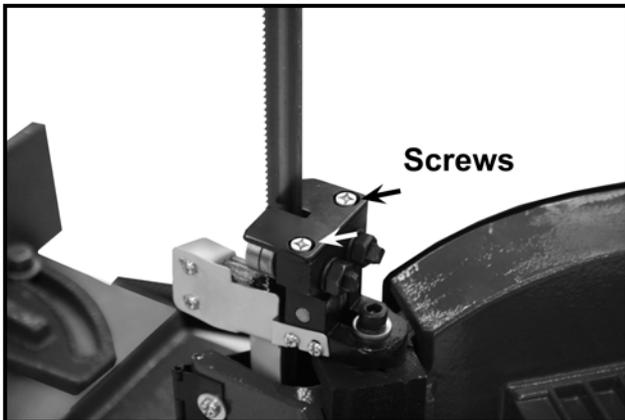


Figure-9 Removing the screws

4. Guide the blade through slot in the table and secure the table with two screws. See figure-10.

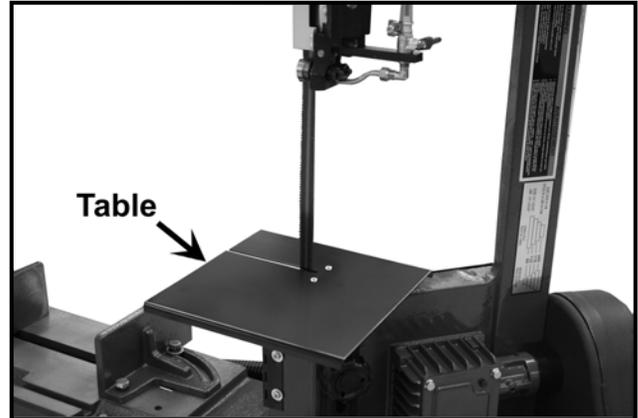


Figure-10 Installing the table

Coolant Tank Fluid

Using water-soluble coolant will increase cutting efficiency and prolong the blade life. Make sure not to use black cutting oil as substitute. Change cutting oil often and follow manufacturer's instructions as to its uses and precautions. For details see page-18 Maintenance Section.

Chip Screen

The chip screen keeps the coolant tank fluid clean and does not let chips and cut-offs to enter the coolant tank. Place the chip screen on to the opening shown in figure11.

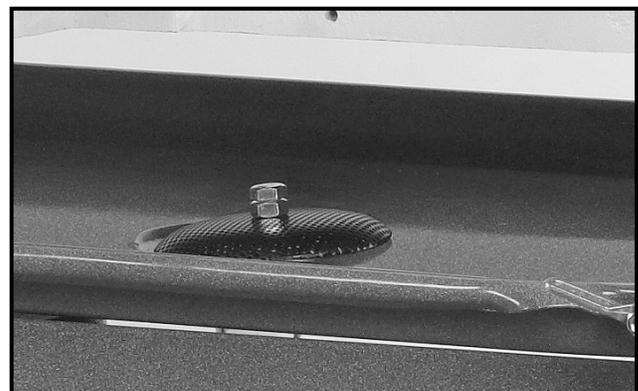


Figure-11 Installing the chip screen

TEST RUN

Once you have assembled your machine completely, then it is time for a test run to make sure that the machine works properly and is ready for operation.

During the test run if there is any unusual noise coming from the machine or the machine vibrates strangely, stop the machine immediately and disconnect from the power source. Investigate and find out the problem with your machine.

If you find any part of the machine that is not assembled properly, read the assembly section of manual and re-assemble that part according to the instructions provided in the manual.

READ THE MANUAL

Before starting the band saw, make sure that you have read and understood the manual and you are familiar with the functions and safety features on this machine. Failure to do so may cause serious personal injury.

Lift the saw to the vertical position and remove the blade guards. Loosen the tension screw knob allowing the saw blade to slip off the wheels.

1. Place the new blade in between each of the guide bearings.
2. With teeth towards the motor position the blade around the motor wheel and hold it in place with left hand.
3. Hold the blade tight against the motor wheel by pulling the blade upward with the right hand which is placed at the top of the blade.
4. Remove your left hand from the bottom wheel and place it at the top side of the blade to continue the application on the upper wheel on the blade.
5. Remove your right hand from blade and adjust the position of the top wheel to permit left hand to slip the blade around the wheel.
6. Adjust the blade tension knob clockwise until it is just right enough so that no blade slippage occurs. Make sure not to tighten fully.
7. Install the guards.
8. Apply a few drops of oil on the blade.

Blade Tracking

The blade tracking means where the blade rides on the upper and lower wheels. It should always be centered on both wheels.

IMPORTANT

Blade tracking is already adjusted at the factory. Keep in mind that blade tracking is a very important adjustment on your band saw and it is done in very rare cases. It is recommended not to adjust the blade tracking unless it is absolutely necessary.

To adjust the blade tracking on your CX103:

1. Turn off the motor and disconnect the cord from the power source.
2. Lift the saw arm and position the saw in the vertical position. Close the feed lock shown in figure-19, page-17.
3. Remove the blade guard and open the wheel access cover.
4. Loosen the lower cap screw in the tilting mechanism to a point where it is loose but snug. See figure-12.
5. Rotate the blade tension knob to decrease tension on the blade.
6. Adjust the set screw shown in figure-12 and tighten the lower cap screw.

IMPORTANT

Tightening the set screw will move the blade close to the shoulder of the wheel while loosening it will move the blade away from the should of the wheel.

7. Rotate the blade tension knob to tension the blade.
8. Install the blade guard and turn the saw on. Be careful when the machine is running and do not touch the wheels or the blade. Watch carefully where the blade rides the wheels.

If the blade rides the wheel along its shoulder, the blade tracking is properly done but if the blade drifts away or hits the shoulder, repeat step-2 to step-7.

9. Close the wheel access cover.

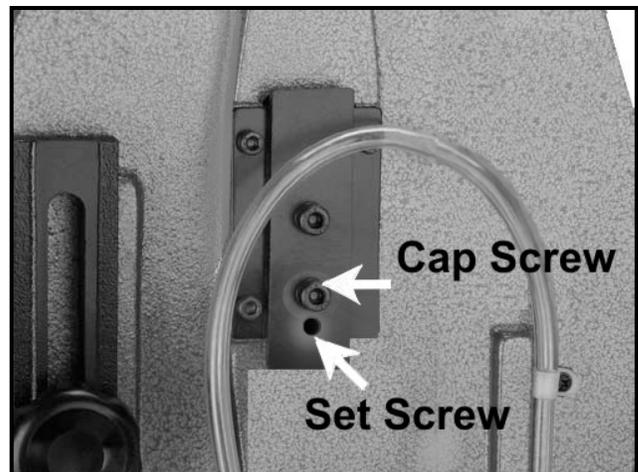


Figure-12 Blade tracking screws

Blade Tension

A properly tensioned blade is very important to get the best performance from any band saw. If the blade is too loose there is a possibility that the blade slip or drift off the line while operation and it will be hard to have accuracy in the line of cut. If the blade is tensioned too tightly, it will be very difficult to make tighter radius cuts and secondly there will be a great possibility of breaking prematurely.

To adjust the blade tension:

Turn the saw off and disconnect the cord from the power source. Turn the blade tension knob shown in figure-13. Turning the knob clockwise will increase the tension on the blade while turning the knob counter-clockwise will decrease the blade tension.



Figure-13 Blade tension knob

IMPORTANT

To prolong the life of the blade and reduce blade stretching, when the machine is not in use for period of 24 hours or more, release the tension on the blade.

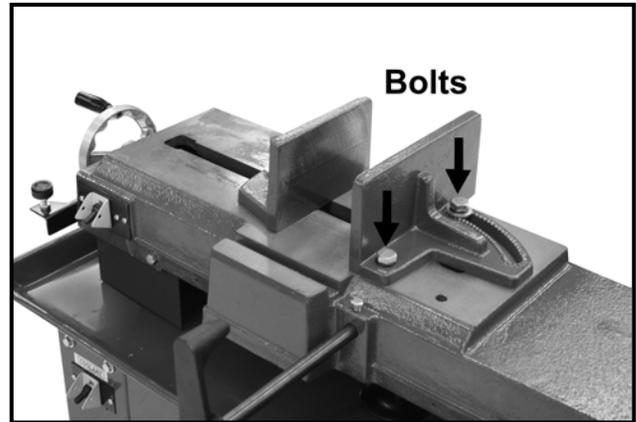


Figure-14 Removing bolts holding the vise

Vise Adjustment

To set the vise for 0 to 45-degree cutting:

1. Lift the saw arm up to 90-degree and loosen the bolts holding the vise to the saw table. See figure-14.
2. Position the vise and re-install it to a 45-degree. See figure-15.
3. Adjust the moveable vise jaw parallel to the fixed jaw by loosening the bolt shown in figure-15, making it parallel and tightening the bolt.

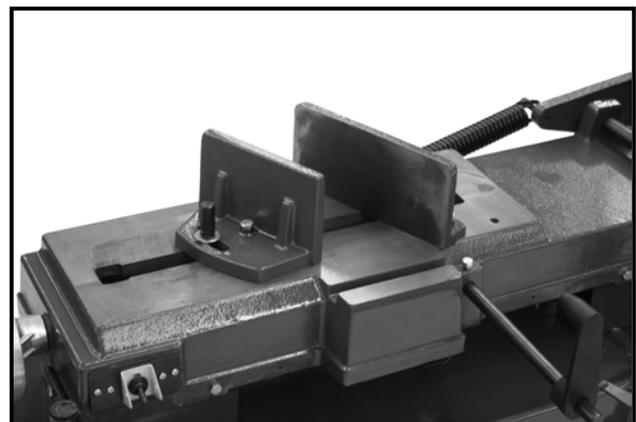


Figure-15 Setting the vise at 45-degree

To Set the Vise for Maximum Width of Stock Cutting:

1. Remove the nut and bolt.
2. Position the vise and re-install the bolts.

Adjusting the Blade Parallel to the Table

1. Turn the machine off and disconnect the cord from the power source.
2. Take a machinist's square and place it on the table as shown in figure-16.

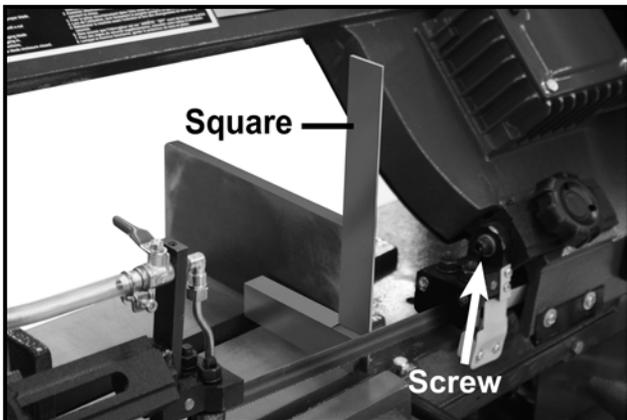


Figure-16 Squaring the blade to the table

3. Check to see if the blade is making contact along the entire width of the blade.
4. If adjustment is necessary, loosen screw shown in figure-16 and rotate the blade guide slightly until the blade is square along its entire width with the table.
5. Tighten the bolts.

Adjusting the Blade Parallel to the Vise

1. Turn the machine off and disconnect the cord from the power source.
2. Place the square as shown in figure-17. The square should lie along the entire length of the vise and blade without a gap.
3. If adjustment is necessary, loosen the bolts holding the vise and adjust it so that the square lines up properly.
4. Tighten the bolts back.

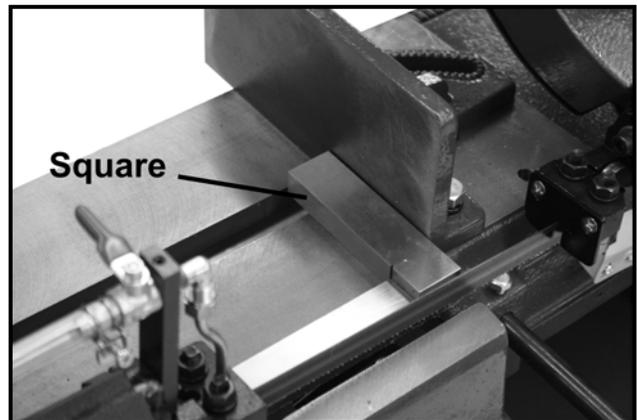


Figure-17 Squaring the vise to the blade

Blade Guide Bearing Adjustment

One of the most important adjustments on your CX103 is the blade guide bearing adjustment.

If the blade guides are not properly adjusted, it is impossible to get the satisfactory result.

The bearing guides on your CX103 are adjusted and power tested with several test cuts in the factory to ensure proper settings so the need for adjustment should rarely occur. If the guides do get out of adjustment, it is important to readjust them immediately.

Because guides adjustment is a critical factor in the performance of your saw, it is wise to try cutting with a new blade before adjusting the guide to see if the new blade solves the problem.

If the new blade does not solve the problem check the space between the blade guides.

There should be from 0.000" to 0.001" clearance between the blade guide bearings and make sure not to squeeze the blade too tightly with the bearings.

To obtain this clearance:

1. The inner guide bearing is fixed and can not be adjusted. The outer guide bearing is mounted to an eccentric bushing and can be adjusted.
2. Lift the saw arm to 90-degree and loosen the nut while holding the bolt with an Allen wrench.
3. Position the outer guide bearing by turning the bolt to the desired position of clearance.
4. Tighten the nut.
5. Adjust the second blade guide bearing in the same manner.

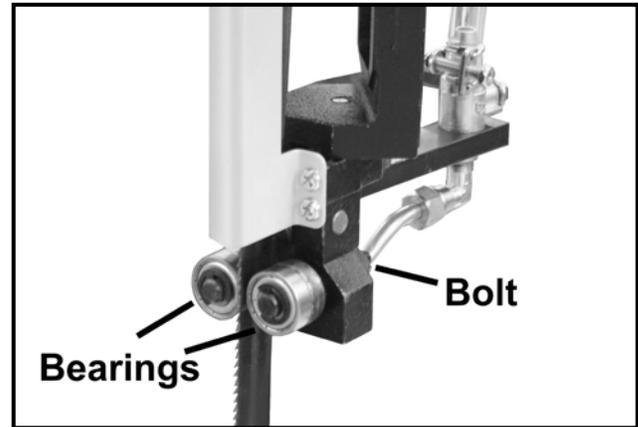


Figure-18 Adjusting the bearing guides

Work Stop Adjustment

Loosen the thumb screw holding the work stop to the shaft and adjust the work stop to the desired length position.

Rotate the work stop to the bottom of the cut as close as possible and tighten the thumb screw.

Make sure the blade is not touching the work-piece even if the machine is in off position.

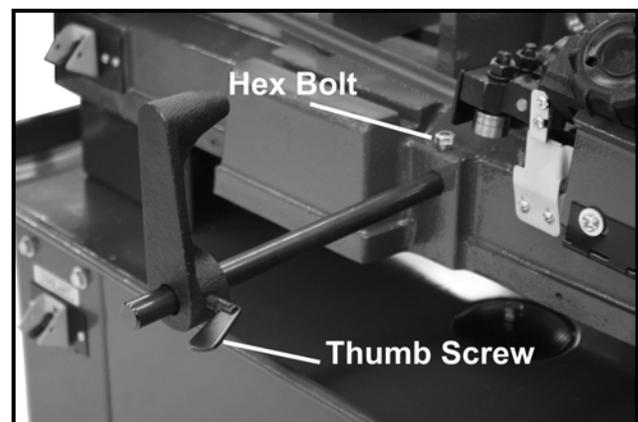


Figure-19 Adjusting the work stop

Hydraulic Feed

The CX103 is equipped with a hydraulic feed which allows controlled lowering of the saw arm.

1. Raise the saw arm to the maximum height and remove the spring the tension using the tension knob. Lock the saw arm in place using the feed lock shown in figure-19.
2. Place the work piece on the table and clamp it tightly with the vise.
3. Make sure the blade is properly installed and proper speed is set. Turn the lubricant pump and the saw on.
4. Open the feed lock slowly rotate the feed rate dial to slow feed rate until the saw blade begins to cut the work-piece.

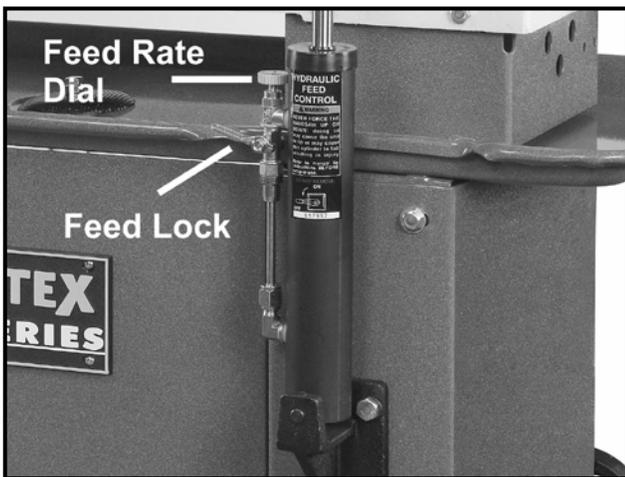


Figure-19 Hydraulic feed

Make sure not to apply pressure to cut the work-piece, but let the hydraulic feed provide the cutting force. Once the cutting is done, the saw turns off automatically.

OPERATION

Blade Selection

An 8-tooth per inch, general use blade is furnished with this metal cutting band saw. Additional blades in 4, 6, 8 and 10 teeth sizes are available. The choice of the blade pitch is governed by the thickness of the work-piece to be cut. The thinner the work-piece, the blade with more teeth should be used. A minimum of three teeth should engage the work-piece at all times for proper cutting. If the teeth of the blade are so far apart that they straddle the work, severe damage can occur to the work-piece and to the blade.

Blade Direction of Travel

The blade is mounted on the wheels such that the vertical edge engages the work-piece first. See figure-20.

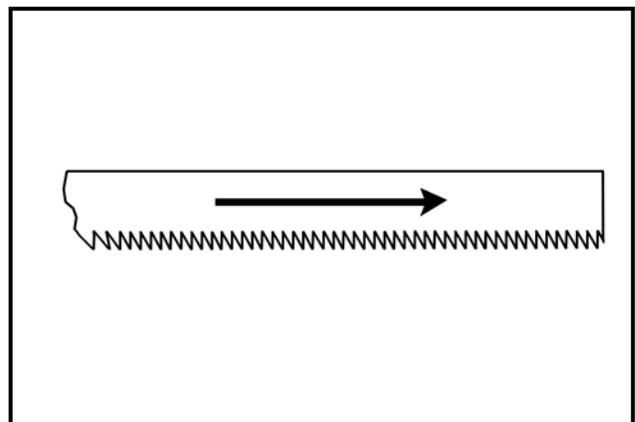


Figure-20 Shows blade direction

Blade Speeds

When using your band saw always change the blade speed to best suit the material being cut. The material cutting chart given below shows the blade speeds for several materials.

Material	Speed F.P.M		Belt Groove Used	
	60 Hz	50 Hz	Motor Pulley	Saw Pulley
Tool Stainless Alloy Steels Bearing Bronze	86	72	Small	Largest
Medium to High Carbon Steels Hard Brass or Bronze	132	110	Medium	Large
Low to Medium Carbon Steels Soft Brass	178	148	Large	Medium
Aluminum Plastic	260	217	Largest	Small

4-Speed Material Cutting Chart

MAINTENANCE

During the life of your machine, you will need to do some maintenance regularly to maintain it in a good condition and get perfect result every time you use your machine.

WARNING

Make sure the machine is turned off and the cord is disconnected from the power source before servicing and removing/replacing any components on the machine.

Coolant Tank Preparation

Using water-soluble coolant will increase cutting efficiency and prolong the blade life. Make sure not to use black cutting oil as substitute. Change cutting oil often and follow manufacturer's instructions as to its uses and precautions.

1. Disconnect the machine from the power source.
2. Remove the coolant return hose from the tank cover.
3. Remove the tank from the saw base and carefully remove the lid containing coolant pump.
4. Fill the tank to approximately 80% of its capacity.
5. Place the lid back onto the tank and place the tank assembly back into the base.

Replace the return hose back into the hole in the tank lid.



Figure-21 Coolant Tank



WARNING

When cutting magnesium, do not use oil-water solutions as fluid because, the water in the solution can cause magnesium-chip fire. Always use a cutting fluid used for magnesium.

LUBRICATION

Lubricate the following components using SAE-30 oil.

1. Ball bearings.
2. Driven pulley bearing 6-8 drops a week.
3. Vise lead screw as needed.
4. The drive gears run in oil bath and do not require a lubricant. Change the oil in the bath once a year, unless the lubricant is accidentally contaminated or a leak occurs because of improper replacement of the gearbox cover. During the first few days of operation, the worm gear drive will run hot. Until the temperature does not go over 200F, it is normal.

WARNING

Make sure the machine is turned off and the cord is disconnected from the power source before servicing and removing/replacing any components on the machine.

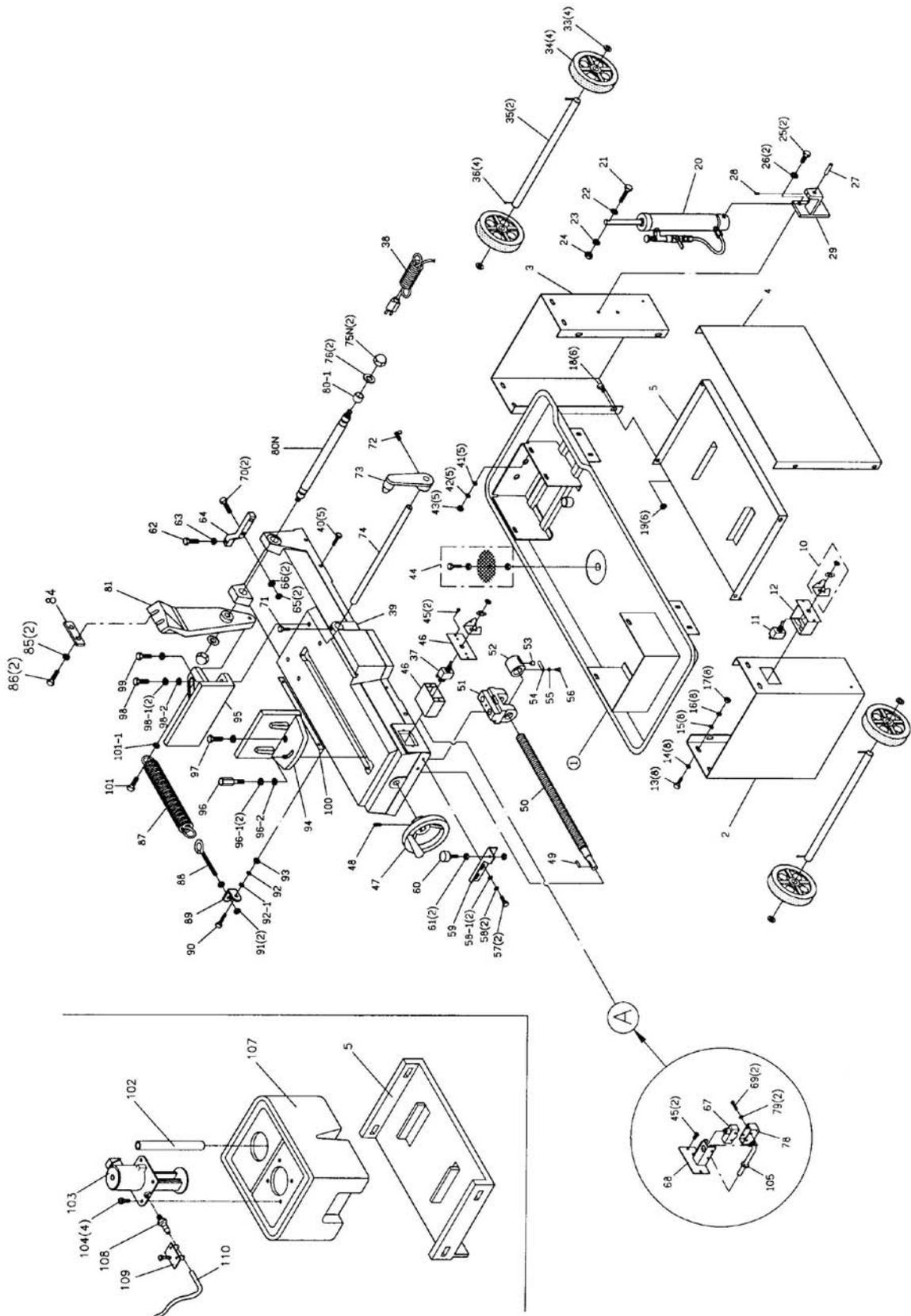
TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	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
Premature 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 (specially stainless steel) 6. Blade installed backwards 7. Insufficient blade tension 	<ol style="list-style-type: none"> 1. Use finer teeth 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 7. Increase tension to proper level
Blade Cuts (Crooked)	<ol style="list-style-type: none"> 1. Work no 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 the vise to be square with the blade and always clamp the work-piece 2. Reduce pressure by increasing spring tension on side of the saw. 3. Adjust guide bearing to .001 greater than maximum thickness, including weld of the saw. 4. Increase blade tension a little at a time 5. Move guide to the work-piece as close as possible 6. Replace blade 7. Check manual for recommended speeds 8. Tighten 9. Tighten 10. Redo the blade tracking adjustment according to the manual

TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Blade 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
Un-usual Wear on Side/Back of Blade	<ol style="list-style-type: none"> 1. Blade guides worn 2. Blade guides bearings not adjusted properly 3. Blade guide bearing bracket is loose 	<ol style="list-style-type: none"> 1. Replace 2. Adjust as per operators manual 3. Tighten
Teeth Ripping from Blade	<ol style="list-style-type: none"> 1. Tooth coarse for work 2. Too heavy feed / too slow feed 3. Vibrating work place 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 specially) 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 coarse blade 5. Adjust gears so that worm is in center of gear 6. Check oil bath 7. Oil bearing / shaft on idler wheel

CX103 – CABINET & BASE PARTS BREAKDOWN



CX103 – CABINET & BASE PARTS LIST

PART NO.	DESCRIPTION	SIZE	Q'TY	PART NO.	DESCRIPTION	SIZE	Q'TY
1	BOTTOM PAN		1	64	90° POSITION SUPPORT		1
2	LEG (LEFT)		1	65	NUT	3/8	2
3	LEG (RIGHT)		1	66	SPRING WASHER	3/8	2
4	SKIRT		1	67	LIMIT SWITCH		1
5	SHELF		1	68	LIMIT SWITCH SEAT		1
10	SWITCH BRACKET		1	69	ROUND HD. SCREW	5/32X1	2
11	TOGGLE SWITCH		1	70	HEX. HD. SCREW	3/8X1 1/2	2
12	ELECTRICAL BOX		1	71	HEX. HD. SCREW	5/16X3/4	1
13	HEX. HD. SCREW	5/16X3/4	8	72	THUMB SCREW		1
14	WASHER	5/16	8	73	STOP BLOCK		1
15	WASHER	5/16	8	74	WORK STOP ROD		1
16	SPRING WASHER	5/16	8	75N	FIBER HEX. NUT	1/2	2
17	NUT	5/16	8	76	WASHER	1/2	2
18	HEX. HD. SCREW	5/16X1/2	6	77	BEARING BUSHING (FRONT)		1
19	NUT	5/16	6	78	RUBBER COVER		1
20	CYLINDER		1	79	WASHER	5/32	2
21	HEX. SOC. SCREW	M10X40	1	80N	SUPPORT SHAFT	22MM	1
22	WASHER	3/8	1	80-1	BUSHING		1
23	SPRING WASHER	M10	1	81	PIVOT ARM		1
24	NUT	M10	1	84	PLATE		1
25	HEX. HD. SCREW	3/8X1	2	85	SPRING WASHER	3/8	2
26	SPRING WASHER	3/8	2	86	HEX. HD. SCREW	3/8X1 1/2	2
27	SUPPORT ROD		1	87	SPRING		1
28	SET SCREW	1/4X3/8	1	88	ADJUSTABLE SPRING ROD		1
29	BOTTOM SUPPORT		1	89	SPRING BRACKET		1
33	WASHER	5/8	4	90	HEX. HD. SCREW	5/16X1	1
34	WHEEL	5"	4	91	NUT	3/8	2
35	WHEEL SHAFT		2	92	SPRING WASHER	5/16	1
36	CUTTER PIN		4	92-1	WASHER	5/16	1
37	TOGGLE SWITCH		1	93	NUT	5/16	1
38	ELECTRIC CORD ASSEMBLY		1	94	FRONT VISE		1
39	TABLE		1	95	REAR VISE		1
40	HEX. HD. SCREW	5/16X1	5	96	VISE THRUST SHAFT		1
41	WASHER	5/16	5	96-1	SPRING WASHER	3/8	2
42	SPRING WASHER	5/16	5	96-2	WASHER	3/8	1
43	NUT	5/16	5	97	HEX. HD. SCREW	3/8X1 1/2	1
44	FILTER		1	98	HEX. HD. SCREW	1/2X1 1/2	1
45	ROUND HD. SCREW	3/16X3/8	2	98-1	SPRING WASHER	1/2	2
46	ELECTRIC BOX ASSEMBLY		1	98-2	WASHER	1/2	1
47	HANDLE WHEEL		1	99	HEX. HD. SCREW	1/2X1 1/4	1
48	SET SCREW	5/16X3/8	1	100	SCALE		1
49	KEY	5X20	1	101	HEX. SOC. SCREW	3/8X1 3/4	1
50	LEAD SCREW		1	101-1	NUT	3/8	1
51	NUT SEAT		1	102	HOSE	1"	1
52	ACME NUT		1	103	PUMP		1
53	BUTTON		1	104	HEX. HD. SCREW	1/4X1/2	4
54	RETAINER		1	105	STRAIN RELIEF		1
55	SPRING WASHER	M5	1	107	COOLANT TANK		1
56	ROUND HD. SCREW	M5X8	1	108	HOSE FITTING		1
57	HEX. HD. SCREW	5/16X5/8	2	109	HOSE CLAMP	13MM	1
58	SPRING WASHER	5/16	2	110	HOSE	5/16	1
58-1	WASHER	5/16	2	111	SAW BOW		1
59	SUPPORT PLATE		1	112N	TAPPING SCREW	6X20	4
60	STOP SCREW		1	113	VENT PLUG		1
61	NUT	5/16	2	114N	GEAR BOX COVER		1
62	HEX. HD. SCREW	3/8X1	1	115N	GEAR BOX GASKET		1
63	NUT	3/8	1	116	WORM GEAR		1

CX103 – BOW & MOTOR PARTS LIST

PART NO.	DESCRIPTION	SIZE	Q'TY	PART NO.	DESCRIPTION	SIZE	Q'TY
117	KEY	6X20	1	165	HEX. HD. SCREW	1/4X1/2	4
118	BALL BEARING	6005	3	166	SLIDING GUIDE PLATE		2
119	HEX. HD. SCREW	3/8X1	1	167	SET SCREW	5/16X3/4	1
119-1	SPRING WASHER	3/8	1	168	HEX. HD. SCREW	5/16X1 1/2	2
119-2	WASHER	3/8X35X4	1	169	BLADE TENSION SLIDING BLOCK		1
120	OIL SEAL	25. 47. 7	1	170	HEX. HD. SCREW	1/4X1/2	1
121N	GEAR BOX		1	170-1	SPRING WASHER	1/4	1
122	SPRING WASHER	5/16	4	170-2	WASHER	1/4	1
123	HEX. HD. SCREW	5/16X1 1/4	4	171	SLIDING DRAW BLOCK		1
123-1	ADJ. SCREW	1/4X3/8	2	172	BRACKET		1
124	BLADE WHEEL (REAR)		1	173	BEARING BUSHING (REAR)		1
125	BEARING BUSHING		1	174	BALL BEARING	6203 ZZ	2
126	HEX. SOC. SCREW	3/16X5/8	3	175	BLADE WHEEL (FRONT)		1
127	BLADE		1	176	WASHER	5/16	1
128	BLADE BACK COVER		1	176-1	SPRING WASHER	5/16	1
129	WHEEL COVER		1	177	HEX. HD. SCREW	5/16X3/4	1
130	PLUM SCREW		2	178	ROUND HD. SCREW	1/4X1/2	2
130-1	WASHER	1/4	2	179	WASHER	1/4	2
131	ADJUSTABLE GUIDE KNOB		2	180	WASHER	3/8	1
132	ADJUSTABLE BRACKET (REAR)		1	181	BLADE ADJUSTABLE HANDLE		1
133	BALL BEARING	608 ZZ	2	182	VERTICAL CUTTING PLATE		1
134	ADJUSTABLE BLADE SEAT (REAR)		1	183	BELT	3V270	1
135	BEARING PIN		2	184	WORM PULLEY		1
136	ECCENTRIC SHAFT ASSEMBLY		2	185	MOTOR PULLEY		1
136-1	CENTER SHAFT ASSEMBLY		2	186	SET SCREW	5/16X3/8	3
137	NUT	3/8X24UNF	4	187	HEX. HD. SCREW	1/4X1/2	2
137-1	SPRING WASHER	3/8	4	188	WASHER	1/4	2
138	WASHER	5/16	2	189	PULLEY COVER		1
139	SPRING WASHER	5/16	2	190	PLUM SCREW		1
140	HEX. SOC. SCREW	5/16X1 1/8	1	191	KEY	5MM	1
141	HD. SCREW	1/4X1/2	2	192	MOTOR		1
142	VERTICAL CUTTING PLATE (SMALL)		1	193	HEX. HD. SCREW	5/16X1	4
143	ADJUSTABLE BLADE SEAT (FRONT)		1	194	MOTOR MOUNT PLATE		1
144	HEX. HD. SCREW	3/8X1 1/4	2	195	WASHER	5/16	4
145	TOP SUPPORT		1	196	SPRING WASHER	5/16	4
146	SPRING WASHER	3/8	2	197	NUT	5/16	4
147	NUT	3/8	2	198N	WORM SHAFT STOPPER		1
148	ROUND HD. SCREW	1/4X1/2	2	198-1	SET SCREW	5/16X1/4	1
149	WASHER	1/4	2	199	BALL BEARING	6003	3
150	BRUSH HOLDER		1	200	BLOCK PLATE		1
151	HEX. HD. SCREW	5/16X2 1/2	2	201	OIL SEAL	17. 35. 7	1
152	NUT	5/16	2	202	BEARING BUSHING		1
153	BRUSH		1	203N	WORM SHAFT		1
154	HEX. HD. SCREW	5/16X5/8	3	203-1	KEY	5X5X50	1
154-1	SPRING WASHER	5/16	3	204	HEX. HD. SCREW	1/4X1/2	2
155	MAGNETIC SWITCH	MS-11	1	205	WASHER	1/4	2
156	NOZZLE		1	206	SUPPORT PLATE		1
157	SET SCREW	1/4X3/8	1	207	LIMIT SWITCH RACK		1
158	NOZZLE SUPPORT		1	208	HEX. HD. SCREW	1/4X1/2	1
159	VALVE		1	209	NUT	1/4	1
160	ROUND HD. SCREW	3/16X3/8	2	210	WASHER	1/4	1
161	HEX. SOC. SCREW	5/16X1 1/8	1	211	SPRING WASHER	1/4	1
161-1	SPRING WASHER	5/16	1	212	HEX. HD. SCREW	1/4X1/2	1
163	ADJUSTABLE BRACKET (FRONT)		1	213	NUT	5/16	1
164	BLADE GUARD		1	214	HEX. HD. SCREW	5/16X1 1/4	1
164-1	ROUND HD. SCREW	3/16X1/4	2	217	C-RING	R47	2



WARRANTY

CRAFTEX 3 YEAR LIMITED WARRANTY

Craftex warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **three years** for parts and 90 days for labour (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Craftex reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etceteras.

Craftex shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Craftex product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY. Craftex is a brand of equipment that is exclusive to Busy Bee Tools.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your credit card and part number handy.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept *collect* shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.