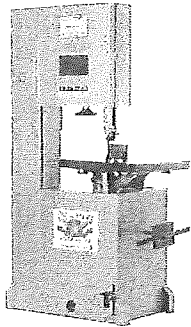
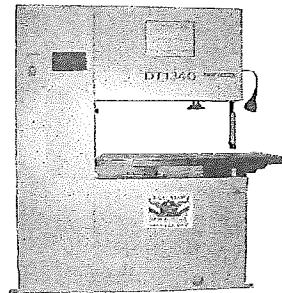


ADDITIONAL MODELS

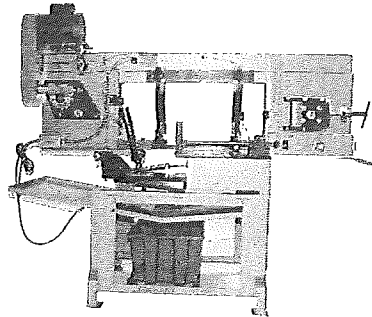
**Model JM1220 Journeyman
20" Vertical Tool & Die Bandsaw**



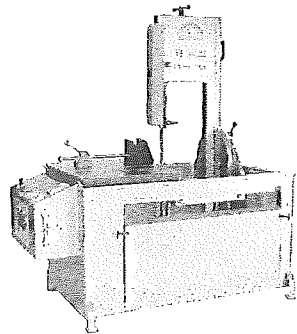
**Model DT1340 Deep Throat
Vertical Journeyman Bandsaw**



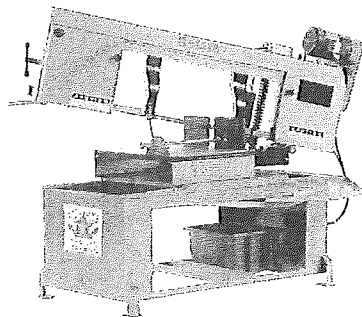
**Model HW1212
Horizontal / Wet Mitre Bandsaw**



**Model TF 1420
Vertical Tilt-Frame Bandsaw**

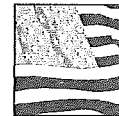


**Model HS 1418
Horizontal Swivel Bandsaw**

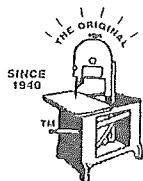
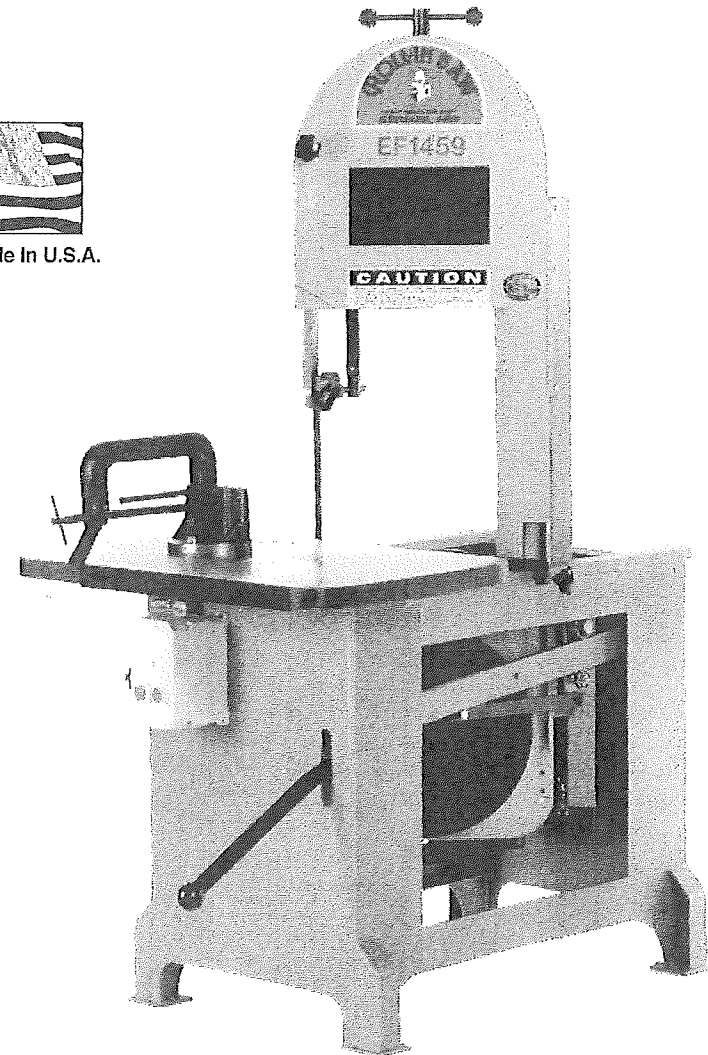


ROLL-IN SAW

MODEL EF1459 OPERATORS MANUAL



Made In U.S.A.



Trick-Tools.com

75 Truman Road
Pella, IA 50219
Phone: 1-877-VAN-SANT
E-mail: sales@trick-tools.com



ROLL-IN SAW

Model EF1459 Vertical All-Purpose Bandsaw

CAPACITY UNDER GUIDES

14-1/2"

THROAT

8-3/4"

WHEELS

Cast iron, 14" x 1-1/8"

WHEEL TIRES

Replaceable rubber

BLADE TRAVEL

9" blade travel into work

TABLE

Precision ground, cast iron table,
18-1/2" x 30"

BLADE LENGTH

10'

GUIDE ROLLERS FOR BLADE WIDTHS

1/4", 3/8", 1/2" and 3/4"

MOTOR

1 HP, 110/220V, 60 cycle single
phase 1HP 220/440V, 60 cycle
three phase

MAGNETIC STARTER

BLADE SPEEDS

70, 140, 270 and 525 fpm

DIMENSIONS

66" H x 30" W x 40" D

SHIPPING WEIGHT

650 lbs.

OPTIONAL EQUIPMENT

"1" guide rollers, casters, 4 per
set, chip dust blower, contour
guide assembly, Saw Master
accessory pkg., work light,
1" welder, grinder and shear,
bench model.

ROLL-IN SAW MODEL EF1459

Congratulations on your purchase of a new Roll-In Saw. This machine was built with pride in the United States of America in Brook Park, Ohio by people that have cared about quality since 1940.

Your Roll-In Saw is a simple but robust band saw that will give you years of service. To get you started using this machine we would like you to follow these easy steps.

First, give your saw a thorough first inspection as they can be damaged in shipment. It is best to do this inspection before you accept delivery of the machine. Any problems with appearance or function should be noted right away so this situation can be remedied immediately.

Once satisfied with your delivery, you can un wrap the plastic from the machine. Then remove the lag bolts from the wooden skid. There are certain marked shipping bolts on the tracks of some models and metal banding on others. These can be removed. Secure the saw to its working area.

Roll-In Saw models with 110 volt motors can be plugged in to any approved electrical outlet. Models with 220 or 440 volt will need a qualified electrician to wire them into appropriate outlets.

Install the band saw blade if not installed by the factory. Check for any other condition that may cause concern. Once this is done, you are ready to begin cutting material. Follow the basic instructions appropriate for the model you have.

If there are any questions regarding the operation or maintenance of this machine, call our Technical Assistance Department for support not covered in this manual at 800-966-1925.

AVOID OPERATIONAL TROUBLES

Check All Adjustments Before Using The First Time!

1. Make sure Tension Handle (Fig.1) is tight.
2. Study instructions carefully and the suggestions on this page before using.
3. Use correct speed. If in doubt, select slower speed. Too high speed tends to take the temper out of the blade and ruins cut.
4. Figures below refer to Picture Chart inside front cover.

Adjustments for Roll-In All Purpose Metal Cutting Bandsaw

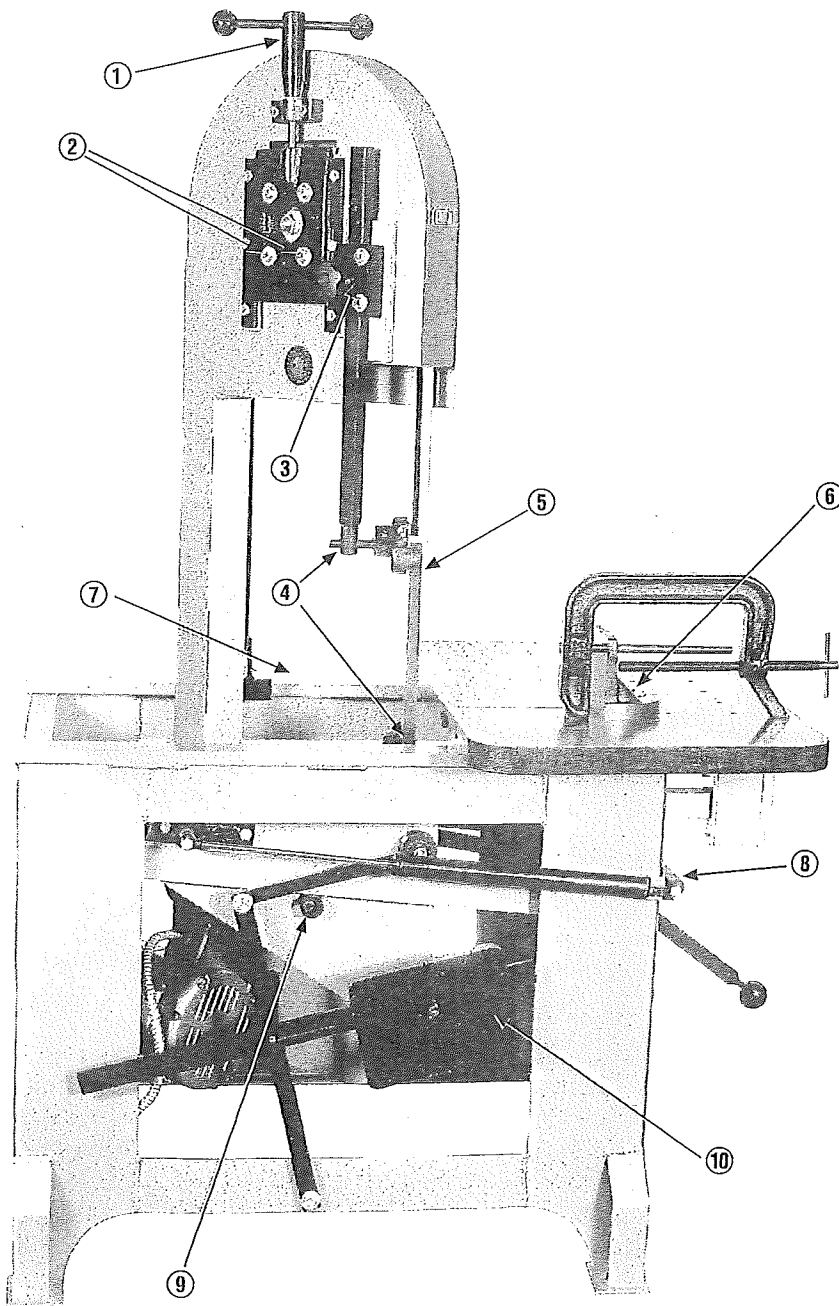
CAUTION: Before adjusting your saw disconnect from, or lockout, the power source.

Blade Tension Adjustment (Fig. 1). Handle at top is to control tension of your saw blade. Tighten firmly before using, or you cannot get straight cuts. Hand tighten with one hand, then one full turn with both hands. Leave slack in saw blade when not in use for extended periods of time.

Cant, or Tilt, of Blade Wheels (Fig.2). Wheels are at proper tilt when machine leaves factory. If blade rides flange of upper wheel, or runs off wheel, adjust it by first loosening lower two of four Hex screws on back plate (Fig.2) which permits setting it properly with the one set-screw between them. Then lock in place by retightening the two Hex screws. When perfectly adjusted, back of blade will clear flange by about 1/32-inch. Though seldom needed there is an adjustment for the lower wheel - a single screw to the right of the gearbox.

Adjusting Top Saw Guide (Fig.3). Top guide should be lowered to lowest point that still leaves clearance for the saw blade to clear the work. Lower guide is stationary.

For True, Straight Cut (Fig.4,5). If cut gets out of alignment, check first to be sure set of teeth on one side or the other have not been damaged. If blade is OK but cuts crooked, check set screws of the



guides. Both rollers above and those below point of cut should be so angled that at all times the blade turns all four rollers and touches them both back and front.

Table Angle Plate (Fig.6). Graduated for either straight or angle cuts. The 1/2-inch pin, on bottom of angle plate, fits into forward hole in the table at end of saw slot. Screw fitting into back hole of table and through slot in angle plate holds block firmly when clamped. Set at 0 degrees for straight cut-off work. No clamp needed when cutting flat stock, as pressure of incoming blade holds it in place against the table and angle plate. For angle cuts, set work block by arrow and graduations. Use large C-Clamp to hold stock; introduce blade slowly to avoid having it walk away from the cut! For contour or rip work, remove the block, leaving table clear, and lock blade frame in forward position with small stop clamp (Fig.7). (Graduations are for reference only.)

To Cut Into, but Not Through Stock (Fig.7). Lock small clamp to base rail at the distance you want left uncut. When locked BEHIND the column it will hold the frame firmly in place for contour and rip cutting.

V-Belt and Pulley Tension on belt from gear box to motor is maintained by weight of motor.

Speed Adjustment is through Cone pulleys and V-belt. Remember, in gravity-feed cut-off work, speed is controlled more by pressure of the feed than by the speed of the blade.

Note: Gear box and all parts of the drive are designed for use with 4-step (2,3,4,5-inch) pulleys. If higher speed is desired move belt to proper sheave of pulley for speed change of 70-140-270 and 525 FPM. These speeds are calculated from the outer sheave of gear box pulley.

Hydraulic Feed Regulator (Fig.8). Controls acceleration of blade into work when cutting tubing and pipe.

Keep Eccentric Wheel (Under Left Track) Snugly Locked (Fig.9). This should be loose enough to permit free movement on track, but tight enough to hold upper roller bearing on track.

Counterweight Pressure Control (Fig.10). See detailed chart.

Five Blade Widths. Blade Wheels with their embedded rubber tires will take 3/4, 5/8, 1/2, 3/8, or 1/4-inch blades, and guide rolls are grooved for all these widths. The blade length below is recommended, leaving extra length for rewelding. Tension control handle (Fig.1) permits the 5-inch adjustment. For cut-off work, the 3/4-inch blade will usually be used. Use narrower blade for contour work. Normally we recommend using a blade for hard metal with fine enough teeth to keep at least three teeth or more within the thickness of the metal being cut.

Cut Vertical and Down. When installing blades over carrying wheels, be sure the teeth point down.

Use 10' blade with EF Model
Use 9' blade with SF Model

Place Saw on Level Floor. The "Roll-In" needs no special base when being set up, but to insure accuracy of cuts it should stand on a level floor.

ATTENTION!

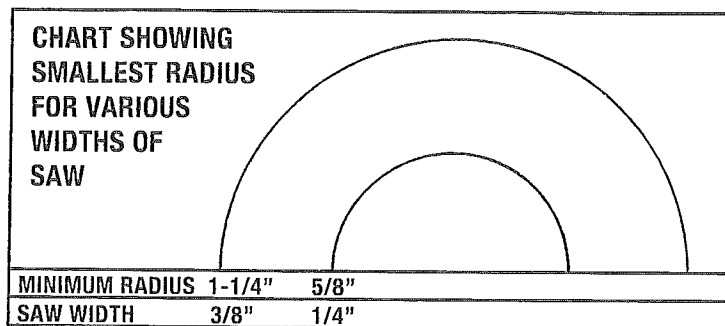
Before using saw, tighten blade with tension handle with one hand, then a full turn with both hands. Most cutting problems result from loose blade. When saw is not being used, however, it is well to release this tension to preserve blade.

When bringing carriage down track for cut DO NOT LET GO OF HANDLE until cut is begun. Jamming blade into work may damage it. Be sure that there is nothing between saw blade and work piece.

BLADES WILL WEAR LONGER, and cut better if you use blade of fine enough teeth so at least three are always inside thickness of material being cut. Adjust counter weight to reduce blade pressure when cutting extremely thin stock.

Cautions in Using Narrow Metal Band Saw Blades

1. Use proper teeth; fine teeth for thin material, coarse teeth for large or soft stock.
2. Use the maximum width blade possible, that will go around curves, yet still enable you to attain the minimum radius.
3. Keep upper guide as close to work as possible, and for close contour work we recommend the slotted contour guide attachments.
4. Do not force on curves.



Note: For straight cuts, 3/4-inch blade is best.

Recommended Speeds

Please refer to the speed chart on the front of the machine.

Roll-In Standard Equipment

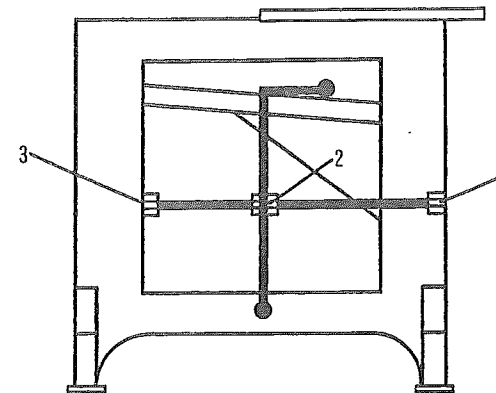
As it reaches you, your Roll-In should include as standard equipment, either as integral parts of the machine or as working fixtures, all of the following:

One blade	Graduated swivel Angle Plate
Blade Guard	C-clamp for round stock
Stop Clamp	Counterweight pressure control
Replaceable Rubber Tires	Blade-and-Speed-Selector plate
Pulley Guard	Hydraulic feed regulator

Note: for a list of special purpose "Extras" see the back cover.

Counterweight Pressure Control

(Figure 10,
Cover Chart)



To reduce cutting time, slide weight forward front of machine (Position 1). At extreme end, this increases blade pressure sufficiently to slightly more than doubling cutting speed.

For normal cutting pressure, fasten weight at meeting point of cross bars (Position 2). Here, the weight neither increases nor decreases the pressure.

For cutting thin or soft stock move the weight toward the back of the machine (Position 3).

Tests have indicated that on the Roll-In, extra pressure may be applied and the increased cutting speed obtained without shortening the blade life, i.e., without reducing the cutting life of the blade.

Your own tests will best determine how much the pressure should be increased, or decreased, on the material for which you are using your Roll-In.

Replacement Parts

Replacement parts for your Roll-In are available through your dealer, or from the factory (216-459-9001 or 800-966-1925).

Identification or prices of these parts, or both, will be furnished upon request. Please furnish your dealer, or us, with the serial number of your machine, located on back of top rails of base frame, with your inquiry.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Blade develops camber	<ol style="list-style-type: none"> 1. Feed pressure too heavy 2. Saw guides too far apart 3. Blade riding against flange on wheel 4. Roller guides not properly adjusted 5. Saw band pitch too fine 	<p>readjust adjust closer to the work</p> <p>tilt wheel for proper tracking</p> <p>readjust</p> <p>use a coarser pitch</p>
Blade develops twist	<ol style="list-style-type: none"> 1. Saw is binding in cut 2. Saw guide inserts or rollers too close to saw 3. Wrong width of blade for radius being cut 4. Too much blade tension 	<p>reduce feed rate</p> <p>readjust</p> <p>use narrower band-saw blade</p> <p>reduce</p>
Saw dulls prematurely	<ol style="list-style-type: none"> 1. Band velocity too high 2. Feed rate too light 3. Too coarse pitch 4. Saw idling through cut 5. Coolant improperly directed 6. Improper break-in on new blade 7. Improper saw guides for band width 	<p>reduce</p> <p>increase</p> <p>use finer pitch</p> <p>keep teeth engaged -- use positive feed pressure</p> <p>apply at point of cut</p> <p>reduce feed rate by half on first few cuts</p> <p>replace with correct ones</p>
Saw loses set prematurely	<ol style="list-style-type: none"> 1. Saw is too wide for radius being cut 2. Saw speed too fast 3. Saw rubbing against vise or running deep in guides 4. Not using coolant 	<p>replace with smaller blade</p> <p>decrease speed</p> <p>check travel</p> <p>try to introduce it</p>
Saw vibrates in cut	<ol style="list-style-type: none"> 1. Wrong speed for material and thickness 2. Insufficient blade tension 3. Pitch too coarse 4. Incorrect feed pressure 5. Workpiece not held secure 	<p>see section on recommended speed and feed</p> <p>increase tension</p> <p>select finer pitch</p> <p>adjust</p> <p>clamp firm</p>

TROUBLESHOOTING (Cont'd)

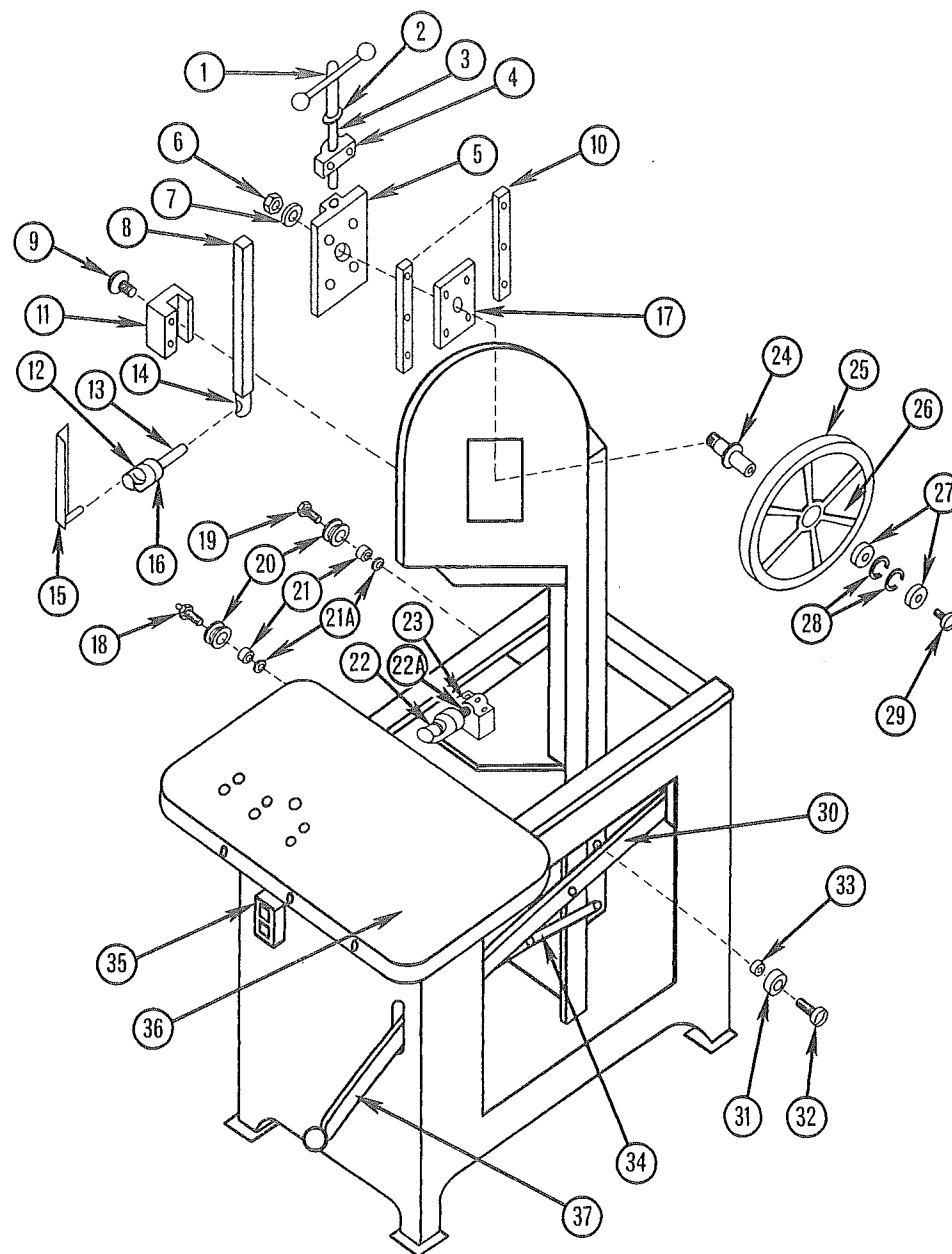
PROBLEM	CAUSE	SOLUTION
Saw teeth rip out	<ol style="list-style-type: none"> 1. Pitch too coarse 2. Work not tightly clamped 3. Sawing dry 4. Gullets loading 5. Excessive feed pressure 6. Too slow speed 	<p>use finer pitch on thin sections</p> <p>tighten work-piece to prevent vibration</p> <p>use coolant where possible</p> <p>use coarser pitch or higher viscosity lubricant or attach brush to remove chip</p> <p>reduce</p> <p>increase</p>
Saw blade breaks prematurely	<ol style="list-style-type: none"> 1. Speed too low 2. Too much feed 3. Blade too thick for diameter of wheels 4. Cracking at weld -- weld improperly made 5. Pitch too coarse 6. Excessive blade tension 7. Guides too tight or out of adjustment 	<p>increase</p> <p>decrease</p> <p>use lighter gage</p> <p>try longer anneal</p> <p>use finer pitch</p> <p>reduce tension</p> <p>readjust</p>
Blade stalls in work-piece	<ol style="list-style-type: none"> 1. Feed pressure too great 	decrease
Bandsaw blade squeals while sawing	<ol style="list-style-type: none"> 1. Too low feed 	increase pressure
Cutting rate too slow		<p>increase speed</p> <p>increase feed</p> <p>use a coarser pitch blade</p> <p>use coolant</p>
Bandsaw blade gullets loading up	<ol style="list-style-type: none"> 1. Too fine pitch 2. Band speed too great 3. Cutting dry 	<p>use coarser pitch</p> <p>reduce</p> <p>use coolant</p>
Chips welding to bandsaw blade teeth	<ol style="list-style-type: none"> 1. Feed force too heavy 2. Chip brush out of alignment 	<p>reduce</p> <p>adjust</p>

TROUBLESHOOTING (Cont'd)

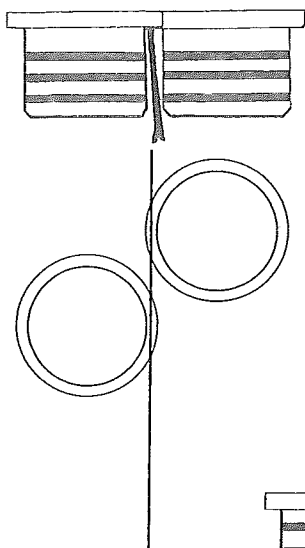
PROBLEM	CAUSE	SOLUTION
Chips welding to bandsaw blade teeth (cont'd)	1. Coolant wrong type, improperly mixed, or improperly applied	change coolant
Bandsaw becomes scored	1. Saw guides worn 2. Guides out of alignment 3. Guides too tight	replace adjust adjust
Crooked cutting	1. Guides out of adjustment 2. Guides worn 3. Too heavy feed 4. Blade badly worn 5. Guide arms too far apart from workpiece	readjust repair or replace reduce replace adjust

PARTS LIST FOR ASSEMBLY DRAWING

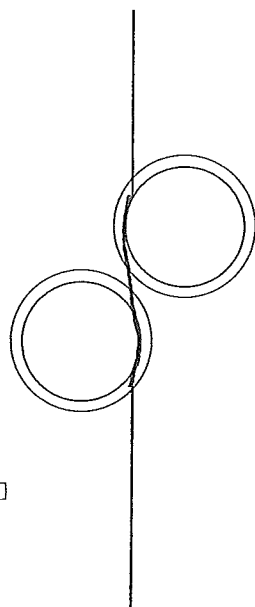
1. Tension Handle	P/N 1164	20. Grooved Track Roller	P/N 1169
2. Tension Handle Spacer	P/N 1188	21. Grooved Roller Bearing	P/N 169
3. Tension Screw	P/N 1165	21A.Flat & Grooved Roller	
4. Tension Handle Block	P/N 131	Spacer	P/N 190
5. Wheel Slide	P/N 134	22. Guide Housing-lower	P/N 148
6. Axle Nut	P/N N/A	22A.Lower Guide Stem	P/N 1156
7. Wheel Washer	P/N N/A	23. Lower Pillow Block	P/N 138
8. Guide Bar	P/N 185/1x85	24. Upper Wheel Axle	P/N 1168
9. Guide Bar Adjustment Knob	P/N 1141	25. Rubber Tire	P/N 1133
10. Wheel Slide Runner	P/N 1171	26. Wheel Casting- Upper	P/N 136
11. Guide Bar Block	P/N 139	Wheel Casting-Lower	P/N 137
12. Guide Roller	P/N 175	27. Wheel Bearing	P/N 167
13. Upper Guide Stem	P/N 1157	28. Snap Rings	P/N N/A
14. Guide Bar Swivel	P/N 1161	29. Upper Wheel Stud	P/N N/A
15. Blade Guard	P/N 1A142	30. Flat Track Rail	P/N 107
16. Guide Housing-upper	P/N 148	31. Flat Track Bearing	P/N 164
17. Wheel Slide Rocker	P/N 135	32. Flat Track Stud	P/N 1150
18. Grooved Roller Stud		33. Flat Track Spacer	P/N 190
(Counterweight)	P/N 1152	34. Lever Link	P/N 1173
19. Grooved Roller Stud	P/N 1151	35. Magnetic Starter	P/N 172
(Hex Head)		36. Table	P/N 132
		37. Return Handle	P/N 183



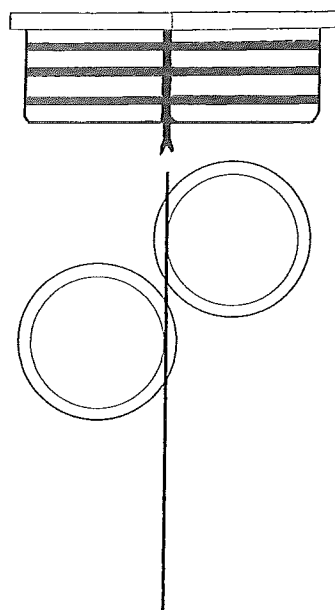
WRONG
NOT ENOUGH TWIST



WRONG
TOO MUCH TWIST



CORRECT



INSTRUCTIONS TO RE-ALIGN ROLL-IN SAW GUIDE ASSEMBLY

Loosen both upper & lower guide assembly stems from the pillow block, or guide bar (upper). Caution - do not loosen the upper guide roll housing from the stem. Put a 3/4" blade on the machine. Now turn the lower guide roll housing counter clockwise until the blade is riding squarely on both guide rolls with the back edge of the blade lightly touching the back-up shoulder of the guide rolls. Tighten the set screw in the pillow-block so this assembly is now held firmly in place.

Now swivel the top guide roll housing and stem counter-clockwise in the same position as the lower guide-roll housing - with the blade positioned against the guide rolls the same as on the bottom rolls. Tighten this assembly securely with the set-screw in the guide-bar.

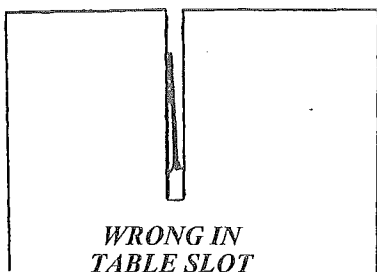
Be certain the blade is exactly perpendicular to the table, and in the center of the table slot, after the guide roll housings are locked in place. The blade should be perfectly straight between the lower & upper guides-with no "s" curve between these two points. Place a square on the saw table and against the side of the saw blade teeth. The blade should now be perfectly square to the surface of the table. If this is accomplished your Roll-In should now cut square & straight.

If the blade is not square with the table you may have moved the top guide housing on the housing spindle. (This spindle is eccentric - in order to throw the blade either right or left to bring the blade perfectly square to the table). If this has happened, loosen all set screws on the top saw guide housing and the back of the spindle.

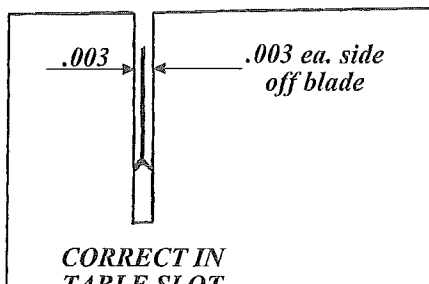
Now by trial and error you can adjust the housing and eccentric spindle, either right or left, until the blade is again in its original perpendicular position.

NOTE - the bottom spindle is not eccentric. All adjustments for squareness must be accomplished with the top guide assembly.

WRONG IN
TABLE SLOT



CORRECT IN
TABLE SLOT



IMPORTANT SAFETY INSTRUCTIONS

WARNING

Failure to follow the following safety precautions may result in serious injury!

DISCONNECT POWER SOURCE. Always disconnect the power source before performing maintenance or changing the blade of this machine.

USE SAFETY EQUIPMENT. Eye protection is required at all times when operating this machine. In some cases face mask and ear protection may be needed. Wear proper apparel to avoid accidents such as slipping, clothing or hair caught in the moving parts of the band saw.

NEVER LEAVE MACHINE RUNNING ATTENDED. Before leaving this machine, make sure the power is off and the blade has come to a complete stop.

KEEP A CLEAN WORK AREA. A clean work area will help prevent accidents. Keep clutter to a minimum and clean oil spills immediately to avoid slipping. Good housekeeping is always a good practice.

ALWAYS BE ALERT. Keep alert to potential work hazards. Do not overcrowd a work area. Watch what others are doing in your work area. Avoid the moving parts of this machine.

SECURE ALL WORK. Use proper clamps, vices or jigs to hold your work secure. Do not push machinery beyond its normal capability. Do not overreach while working on this saw.

MAINTAIN THIS MACHINE. Always keep this machine well maintained by keeping the working parts of this saw in good working order. Be sure the blade is sharp and it is the proper one for the material being cut. Always make sure the blade has proper tension and is cutting straight.

ALWAYS KEEP ALL SAFETY GUARDS IN PLACE.

DO NOT PERFORM MODIFICATIONS TO THIS MACHINE AS THEY MAY CREATE AN UNSAFE CONDITION AND WILL VOID ANY WARRANTIES.

DO NOT ATTEMPT TO USE THIS MACHINE FOR ANYTHING OTHER THAN WHAT IT WAS INTENDED.

DO NOT OPERATE WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.

THESE OPTIONS ARE AVAILABLE

Valuable Aids for Special Jobs!

“No-Twist” Contour Guides

While our standard guides are adequate for casual contour work, you’ll find these special attachments invaluable in close precision jobs.

Chip Dust Blower

Keeps markings on work-piece clear for close contour work.

Blade Welders

You’ll need one of these if you plan to use your Roll-In for die work; “inside” cuts.

Casters

Set of four casters – two with locks – makes Roll-In completely portable. Raises saw about 5 inches.

Saw Master Accessories Package

Quick clamp with back plates. Rip fence with rail.

Work Light