Read and understand this material before using the Bandsaw. Failure to understand how to safely operate this unit may result in serious injury or death.

This manual is free of charge. All personnel who operate the Bandsaw should have a copy of this manual and read and understand its contents. To request a copy, call or write to the address below.
IMPORTANT
BLADE BREAK-IN INSTRUCTIONS

Modern bandsaw blades are too sharp to cut at full rate when "fresh out of the box" and require a short break-in period. The break-in time lightly hones the teeth and greatly improves their strength and life.

FAILING TO FOLLOW THE BREAK-IN PROCEDURE WILL GREATLY REDUCE THE BLADE LIFE AND INCREASE THE POSSIBILITY OF TOOTH STRIPAGE.

REDUCE FEED RATE;
USE 1/3 TO 1/2 NORMAL FEED PRESSURE.
"HAND FEED" THE SAW IF NECESSARY.
BECAUSE OF THE REDUCED PRESSURE THE CUT SHOULD TAKE ABOUT TWO OR THREE TIMES AS LONG.

BLADE SPEED;
MAINTAIN NORMAL BLADE SPEED.
DO NOT SLOW BLADE DOWN FOR THE BREAK-IN.

BREAK-IN TIME;
Cut 50 TO 100 SQUARE INCHES OF MATERIAL FOR ADEQUATE BREAK-IN.

ONCE YOU HAVE CUT 50 TO 100 SQUARE INCHES OF MATERIAL GRADUALLY INCREASE THE FEED PRESSURE TO THE NORMAL RATE.

THE CORRECT BREAK-IN PROCEDURE IS ESSENTIAL TO REALIZING THE FULL CAPACITY OF MODERN HIGH PERFORMANCE BANDSAW BLADES. FOLLOW THIS BREAK-IN PROCEDURE ON EVERY NEW BLADE.

11-98
SAFETY INSTRUCTIONS
Know your machine, its safe and proper use!

DISCONNECT POWER before adjusting or servicing the saw or changing a blade.

STAY CLEAR of all moving parts. Keep hands and fingers away from the saw blade.

WHEN MOVING SAW, with hinged frame (saw head), secure the head in its down position.

WHEN CUTTING MAGNESIUM, take special precautions. Use a sharp saw blade, make only dry cuts, prevent chip accumulation, and keep fire-fighting equipment nearby.

THIS SAW SHOULD BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRICAL SHOCK.

1. CORD-CONNECTED TOOLS. If the saw is equipped with an approved three-conductor cord and a three-prong grounding plug it should only be connected to a properly equipped and grounded receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.

Use only a three-wire extension cord having a three-pronged receptacle, a three-pronged plug and simple amperage rating. Replace or repair a damaged or worn cord immediately.

2. PERMANENTLY CONNECTED TOOLS. The saw should be connected to a grounded, metal-enclosed wiring system or an equipment-grounding conductor should be run with the circuit conductors and connected to the saw's grounding terminal or lead.

To reset the manual starter after a power interruption, return the switch to OFF and press the RESET button before restarting.

FOR ALL TOOLS

KEEP GUARDS IN PLACE and in working order.

REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit. Check to see that all keys and wrenches are removed from the tool before turning the tool on.

KEEP WORK AREA CLEAN. Clustered areas and benches invite accidents.

AVOID DANGEROUS ENVIRONMENT. Do not use power tools in damp or wet locations. Keep your work area well lighted.

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

MAKE WORKSHOP KID-PROOF with padlocks, master switches, or by removing starter keys from tools.

DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.

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

WEAR PROPER APPAREL. No loose clothing or jewelry to get caught in moving parts. Rubber-soled footwear is recommended for best footing.

USE SAFETY GLASSES. Also use face or dust mask if operation is dusty.

SECURE WORK. Use clamps or a vise to hold work. Provide adequate support to prevent injury from falling work pieces.
DON'T OVER REACH. Keep proper footing and balance at all times.

MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

DISCONNECT TOOLS before servicing or when changing accessories such as blades, bits, cutters, etc.

AVOID ACCIDENTAL STARTING. Make sure the switch is in OFF position before connecting power tools.

USE ONLY RECOMMENDED ACCESSORIES. Consult the owner’s manual for recommended accessories. The use of improper accessories may be hazardous.

NEVER STAND ON A TOOL. Serious injury can occur if the tool is tipped or the cutting tool is accidentally contacted.

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, mounting and any other condition that may affect the tool’s proper operation. Any guard or part that is damaged should be properly repaired or replaced.

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Although this excerpt from the survey report does not necessarily reflect the views and policies of OSHA, it is presented for your consideration in maintaining workplace safety.

From
"Machine Guarding - Assessment of Need"

HEW publication No. (OSHA) 75-173

SUMMARY:
The previous information has discussed specific machines and their inherent characteristics and hazards. All machines, however, require proper power installation and maintenance. High-speed, rotating cutting tools must be properly sharpened and well balanced to eliminate vibration. Saw blades must be properly sharpened and set to eliminate binding and ensure clean cuts. Any cutting tool that is cracked or chipped must be discarded.

The work area should be neat, well lighted, properly ventilated and free of pedestrian or vehicle traffic. Ample room is needed for stock handling and storage, the floors must be free of slipping or tripping hazards as many machines have exposed tooling that can be fallen on.

These items, though they are not specific machine guard needs, are equally important.

It is also interesting to note that operators observed and questioned by the survey representatives and employed on some woodworking and metalworking equipment are often new hires with little or no experience in machine operation. This is substantiated by the finding that proper training programs are almost absent from industry (Field Supplement, page 8) and by the fact that the highest percentage of accidents occurs at a young age (see Field Survey Supplement, page 8). The best example of this is with operators of saws where the operation seems self-explanatory through observation. Perhaps the operation is basically simple; nevertheless, operators should be carefully trained and enthusiastically motivated to perform safely.

A final observation found through field surveys has to do with the size of the company versus the number of unguarded machines (see Field Survey Supplement, page 2). The smaller the company in number of employees, the larger the percentage of unguarded machines observed. This illustrates a further need for machine guards.

The age of the operator, the size of the company, and the lack of training programs, along with the investigation of specific machines to identify inherent hazards, establishes a definite need for machine guarding. The fact that a hazard exists and a worker performs in proximity to that hazard will undoubtedly result in an injury. Because of this, the use of machine guards to divorce the operator from the hazard to the highest possible degree is not only desirable but needed. It is the moral responsibility of the employer and expected benefit to the employee to be able to manufacture goods without occupational injuries.
READ CAREFULLY

The MODEL 58B METAL CUTTING BAND SAW is designed for efficient performance. With proper care, it will give you many years of dependable service. READ THIS MANUAL CAREFULLY BEFORE OPERATING YOUR NEW SAW.

After final assembly, each saw is inspected and tested. No adjustment should be needed.

This manual has been prepared to assist you in the operation and maintenance of your new saw. If you desire additional information or assistance, please contact your dealer's service representative.

INSTALLATION

Uncrate and check all parts. Report any damage to your carrier and file a Proof of Loss Claim with the carrier.

Be sure motor specifications correspond with your power source.

Place the saw so that each leg is carrying its share of the load. The 58B Saw can be operated both horizontally and vertically. For vertical operation, place frame in upright position, attach the vertical work table, and operate switch manually.

OPERATION

Do not apply too much feed rate. Start cut carefully and the new blade will last much longer. Make sure all four legs are in solid contact with the floor. Keep blade guide as close to the work as possible.

PLACING BLADE ON SAW

1a. Dry Cutting Machine! Release from safety latch bar and swing frame into vertical position.

1b. Machine with Wet Cutting System! Remove chip pan, then follow instructions in 1a.

2. Open idler wheel hinged guard.

3. Remove blade guard

4. Turn blade tension wing screw to lower the idler wheel and slide block assembly.

5. Uncoil a 1/2" x 93" blade.

6. When facing cut-off side of machine, blade must travel toward the motor end.

7. Be sure blade teeth point in this direction. If not, twist blade band inside-out.

8. Install blade as follows:
   a. Place blade between guide bearings and brushes.
   b. Insert blade into slot between frame and guard.
   c. Slide blade onto the drive and idler wheels.

   d. Turn tension wing screw until blade is taut.
   e. Make sure blade is completely on band wheel but not riding on either wheel flange.

9. Briefly start and stop motor a few times to make sure blade is riding correctly on band wheels, then tighten blade to proper operating tension.

10. Replace blade guard.

11. Lower frame for horizontal cutting.

12. Check safety latch bar. Be sure it is in proper position to prevent frame from being raised beyond maximum position when used as a horizontal cut-off saw.

QUICK ACTION VISE

The sliding vise jaw is equipped with a ratchet dog arm for quick action and a hand wheel for tightening work in the vise. Excessive pressure is not required to hold material securely in the vise.

FIXED JAW VISE

Two pins in the fixed vise jaw assist in the quick relocation of the fixed vise jaw for 90° cutting. For final and accurate adjustment, the blade should be squared with the vise jaw by placing machinist’s square head lightly against the side of the blade and the square’s blade against the machined face of the vise jaw.

NOTE: These pins must be removed before fixed vise jaw can be turned. For angle cutting, use the clamp bolts to hold fixed vise jaw.

Loosen sliding vise jaw and push against fixed vise jaw, then cap screw tightened, leaving vise vise jaws parallel.

MAXIMUM VISE CAPACITY & 45° DEGREE ANGLE ADJUSTMENT

1. Remove blade brush assembly from blade vise arm.

2. Remove the two 5/16" cap screws holding guide arm to the frame.

3. Move guide arm back to the next two holes. Replace cap screws and tighten in place.

4. Remove vise jaw pins in fixed vise.

5. Remove 1/2" cap screw from quadrant.

6. Loosen cap screw in center of vise jaw and slide vise toward motor end of machine about 2 1/4".

7. Replace 1/2" cap screw in upped holes and tighten lightly.

8. With saw frame in cut-off position, place head of machinist’s square lightly against slot in bed with the blade of square against machined face of vise jaw. Tap lightly with lead hammer until vise jaw is parallel to blade of square. Tighten cap screws. Use a protractor for angle adjustment.
DASH POT

Wellsaws are equipped with a dash pot (frame check) to stabilize the downward travel of the saw frame to protect the saw blade from damage. The action is hydraulic. The flow of fluid being bypassed through an orifice controls the downward stroke of the saw frame.

Fill dash pot to within 1" of top of the bottom cylinder with Cities Service "Amplex 05" Hydraulic Oil or equivalent.

FRAME WEIGHT ADJUSTMENT

The position of the collar in relation to the spring on the dash pot acts as the frame weight adjustment. The proper frame weight is approximately 10 lbs. and is obtained by positioning the collar 3 3/4" down from the top edge of the upper cylinder to the top edge of the collar. For less frame weight, loosen collar and move downward toward tension spring. Reverse procedure for more frame weight. Too much frame weight will cause the blade to cut crookedly.

SWITCH AND MOTOR

This saw is equipped with a start-stop switch that automatically shuts off the motor at the completion of a cut when the wheel guard contacts the switch control rod. If adjustment is necessary, adjust the switch control lever to the desired position for proper shut-off.

It is necessary to raise the saw frame clear of the switch control lever before the saw can be started.

Thermal overload protection is provided in the motor. Should the motor stop for other than normal reasons, it may be due to overload. After the problem has been corrected, the motor may be reset by following the instructions on the motor name plate.

SPEED SELECTION

Saws are equipped with step pulleys that provide three speeds: 76, 141 and 268 blade feet per minute. Change blade speed by loosening wing screw close to the motor pivot. Place belt in desired position, tighten wing screw until belt is snug and lock wing screw with wing nut.

FAST speed to cut thin-wall metal, tubing, thin brass or any metal that will not bum teeth.

MEDIUM speed for general cutting such as cold rolled machine steels or any metals which require a slow speed on a lathe.

Use beeswax when cutting brass. Brass should always be cut with a new blade. If teeth wear unusually fast, use slower speed. Always keep the blade in proper tension.

MAINTENANCE

BEFORE MAKING ANY ADJUSTMENTS, ALWAYS TRY A NEW BLADE TO MAKE SURE THE CAUSE OF THE PROBLEM IS NOT A WORN BLADE.

Blade guides are provided to hold the blade in both horizontal and vertical alignment. Accuracy of cut depends on proper adjustment of the blade bearings. Check their condition for wear or a tendency to stick. When the blade is moved sideways or with a twisting action, the movement should stop at the bearings and not be transferred beyond this point.

An eccentric axle is provided on each blade guide. By rotating this axle, the bearing is drawn away from or toward the blade.

ADJUSTMENT OF GUIDES

(See Page 13)
BLADE BRUSHES

Brushes should be cleaned frequently with kerosene or a good solvent. To take advantage of both rows of bristles, invert blade brushes and install them on the opposite side of the blade.

For best results, replace worn, filled or sticky brushes. In bolting brushes to the mounting angles, be sure wire bristles are turned in the same direction that the blade travels.

LUBRICATION

Correct and adequate lubrication is a very important to achieve maximum service. It is imperative that all dust and dirt be removed before lubricating.

Marfak Grade “O” Grease, or equivalent, is used in the gear case. Other parts of the saw may be lubricated as follows:
1. Vise adjusting screw. Use a heavy oil or light grease.
2. Keep internal ring gear and pinion well lubricated with a good quality, medium grade, fibrous grease.
3. Wheel ball bearings are sealed and permanently lubricated.
4. Apply a few drops of machine oil to the frame pivot bar.
5. For proper motor lubrication, follow the motor manufacturers instructions.

LUBRICATION SUMMARY

GEAR CASE: Service interval; inspect after 3 years and annually thereafter.
Lubricant: Texaco Marfak Grade “O” or equivalent.
Viscosity: SUS @ 100°F = 4125
Military Specification: None

VISE SCREW, EXTERNAL PLASTIC GEAR, PINION: Inspect monthly.
Lubricant: Lubriplate 130-A or equivalent.
Viscosity: SUS @ 100°F = 750-800 Military Specification: MIL-G-46003

HELPFUL SUGGESTIONS

1. To select the proper blade, consider the type of material to be cut as well as to its size and shape. The SELECT-O-CHART is a handy reference guide.
2. Use the correct blade speed and correct pressure for each type of material cut.
3. Always maintain proper blade tension.
4. Lower saw frame carefully so that the blade will start cutting before full frame feed pressure is applied to the blade.
5. Reduce feed pressure for the first two or three cuts with a new blade.
6. Keep the adjustable blade guide as close as possible to the material being cut.
7. Keep blade brushes in contact with the blade teeth at all times.

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Recommended Service Kit For Insurance Against Downtime

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>100406-001</td>
<td>Bearing</td>
<td>6 req'd.</td>
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<tr>
<td>100066-002</td>
<td>&quot;V&quot; Belt</td>
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<tr>
<td>M-420</td>
<td>Blade Brush</td>
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2 Years
Bed & Leg Details
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<tr>
<td>100019-008</td>
<td>Hex Jam Nut, 3/4&quot; -10</td>
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<tr>
<td>100402</td>
<td>Thrust Collar</td>
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<td>102869</td>
<td>Vise Screw</td>
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<tr>
<td>M-061</td>
<td>Vise Screw Nut</td>
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<tr>
<td>102890</td>
<td>Vise Ratchet</td>
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<td>102957</td>
<td>Clamp Block</td>
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<tr>
<td>100003-005</td>
<td>Roll Pin 3/16 x 1</td>
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<tr>
<td>100004-020</td>
<td>Cap Screw, Hex Hd, 5/16-18 x 1-1/4</td>
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<tr>
<td>102981</td>
<td>Vise Ratchet Dog</td>
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<td>100003-002</td>
<td>Roll Pin 3/8 x 2-1/2</td>
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<tr>
<td>105847</td>
<td>Movable Vise Jaw</td>
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<td>100004-039</td>
<td>Cap Screw, Hex Hd, 1/2-15 x 2-1/2</td>
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<td>100004-037</td>
<td>Cap Screw, Hex Hd, 1/2-13 x 1-1/2</td>
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<td>155107</td>
<td>Flat Washer 1/2</td>
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<tr>
<td>A-031</td>
<td>Stationary Vise Jaw</td>
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<tr>
<td>M-065</td>
<td>Locating Pin</td>
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<tr>
<td>A-151</td>
<td>Clamp Nut</td>
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<tr>
<td>103687</td>
<td>Vise Slide Block</td>
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<td>105840</td>
<td>Vise Slide Block Guide</td>
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<td>Tip-Off Block</td>
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<td>Lock Washer, 5/16</td>
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<td>100034-003</td>
<td>Set Screw, 5/16-18 x 3/8</td>
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<td>A-062</td>
<td>Stop Bar</td>
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<td>100017-003</td>
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<td>A-013</td>
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<td>A-036</td>
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<td>Handle Grip</td>
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<td>105818</td>
<td>Handle Rod</td>
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<tr>
<td>102886</td>
<td>Collar</td>
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<td>Set Screw, 1/4-20 x 3/16</td>
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<td>Stop Latch</td>
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<td>100030-004</td>
<td>Flat Washer, 5/16</td>
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<tr>
<td>100050-003</td>
<td>Cotter Pin, 1/8 x 1</td>
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<td>102922</td>
<td>Table Assembly, Includes items 21, 24, 25, 47, 48</td>
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<td>101709</td>
<td>Stock Stop Assembly, Includes items 26 thru 32*</td>
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<tr>
<td>120201</td>
<td>Axle Mounting Strap (2 req’d)</td>
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<td>101300</td>
<td>Hex Nut, 5/16 x 18</td>
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<td>100008-010</td>
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<td>120033</td>
<td>Latch</td>
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</table>
BLADE GUIDE ADJUSTMENT

1. Check the blade fit between guide bearings by grasping the blade between the guide and the band wheel. 2. Twist blade back and forth.

3. If too much clearance is found, rotate the eccentric axle (34) until the bearing (33) is snug against blade and all clearance has been removed.

4. Check guide bearing (32) with thumbs by applying force against bearing. It should be possible to rotate the bearing while it is snug against the blade and all clearance has been removed.

5. When looseness had been corrected, make another cut. If the cut is not straight, further adjustment might be made.

6. Place a square on the cut. Determine if the blade is cutting toward or away from the band or if it is out of square with the vise.

7. If the vise is out of square, correct this by squaring the vise with the slot in the saw blade.

8. If the cut is good, square on the vertical dimension; correct this by moving the guides either away from or toward the saw. This is accomplished as follows;

b. Loosen the two cap screws (31) which hold the guide (28) to the guide bracket (23 & 37). Hold the guide from turning and tip it in the desire direction until the blade is square with the saw bed. To do this:

b. Place a spacer between the frame wheel and the switch box raising the blade teeth just above the saw bed.

c. Place a machinist square on the saw bed and move it to touch the body of the saw blade and mark it so that it does not touch the blade teeth.

d. Use a feeler gauge, .002" or less, to see that the blade is square from top to bottom. If further adjustment is needed, loosen cap screws on one blade guide and move guide so the feeler gauge will not enter at top or bottom. Do not move guide sideways. This may move the blade out-of-square with the vise. Tighten cap screws.

3/4" Blade Guide Option

- Side Bearing, 4 req'd. 32 100416-00
- Roller Axle, 1 req'd 34 B-043
- Roller Axle, 1 req'd 34 B-109

Eccentric Roller Axle, 2 req'd.
Coolant Switch & Dash Pot Details

1 120041 Chip Pan
2 120031 Drip Edge
3 120230 Drip Pan
4 120160-001 Coolant Tank
5 120162 Coolant Tank Cover
6 101165-009 Screen
9 100000-017 Machine Screw, Rd Hd, 10-32 x 1/4
10 100240-010 Coolant Pump
11 102617 Adapter
12 100219-001 Hose Clamp, 3/8
13 100220-020 Coolant Hose, 3/8 x 90°
14 100226 Needle Valve, (Not Used After Sn 23053)
15 100226-005 Valve (Use After Sn 23053)
16 102924 Coolant Nozzle (Not Used After Sn 23053)
20 100030-003 Elbow, 90° (Use After Sn 23053)
30 100030-009 Close Nipple (Use After Sn 23053)
16 120229 Switch Box Assembly, Includes Items 17 thru 27
17 120226 Switch Assembly, Includes items 16 thru 27
18 105984 Switch Lever
19 106439-003 Control Knob
20 100017-001 Hex Nut, 1/4-20
21 100004-053 Cap Screw, Hex Hd, 1/4-20 x 1
22 100081-001 Reset Guard
23 100035-001 Reset Switch
24 100034-001 Indicator Plate
25 100074-006 Toggle Switch
26 100886 Relay
27 100959 Switch Box Cover
28 100000-017 Machine Screw, Rd Hd, 10-32 x 1/4
29 105889 Switch Box
30 100057-001 Connector, TB3302, Not Shown
31 105971 Cord & Plug
32 100757-001 Cord Set, 115V For Cooling
33 100054-098 Cap Screw, Hex Hd, 5/16-18 x 1
34 100039-004 Flat Washer, 5/16
35 105879 Frame Ratchet
36 100017-007 Hex Nut, 3/8-11
37 100885 Pivot Bar
38 105829 Frame Pivot Bracket
39 105881 Spring with "S" Hook
40 120134 Latch
41 102895 Stud
42 101311 Frame Spring Anchor
43 100034-025 Set Screw, 1/4-20 x 3/8
44 120133 Stop Block
45 101077 Collar with Set Screw
46 120135 Release Lever
47 100033-010 Roll Pin 3/8 x 1/2
50 101526 Piston Rod Assembly, complete.
51 101524 Outside Tube
52 101527 Piston Rod

53 M-168 Cup Leather
54 100070 Cup Washer
55 M-148 Spring
56 100050-002 Cotter Pin, 3/32 x 3/4
57 101523 Inside Tube
58 M-147 Dash Pot Lower Stud
59 101777 Latch, Large
60 102918 Spring, Large
61 101776 Clamps
62 100025-002 Lock Washer, 5/16
63 100004-016 Cap Screw, Hex Hd, 5/16-18 x 78
64 098049-001 Dash Pot Oil (Fill to 1" from Top)

Coolant System For Field Installation:
Order Part Number
120218

This kit includes all parts to convert
Model B88-BD to B58-BW
SERVICE PARTS CHANGES

ELECTRICALS
Before 17240 to 21035
Begin 20855
Begin 21036
Use 100670-1 (Switch Only) or 102888 Switch Box Assembly.
Use 105869 Sale Start Plus and Cord Set.
120228 Switch Assembly & 102846-16 Motor.

BLADE GUIDES
To Serial Number 11751
Frame Ratchet 102858
Guide Bracket 102908 Idle End
Guide Bracket 102912 Drive End
Roller Guide Assembly 101322

From Serial Number 11752
Frame Ratchet 105828
Guide Bracket 105832 Idle End
Guide Bracket 105830 Drive End
Roller Guide Assembly 101322

BLADE GUARDS
To Serial Number 11885
Blade Guard 102963 Idle End
Blade Guard 102949 Drive End
Pivot Rod 102961
Current Idle Wheel Guard Assembly could replace old assembly using the following parts.
Idle Wheel Guard Assembly 105868
Roller Axle 105860

WHEEL KITS
To Serial Number 22020
Wheel and Handle Kit for field installation. 102931

120229 Switch Box Assembly

1. Disconnect power.
2. Remove existing cover.
3. Remove wire nut (A) and add white pigtail with push connector.
4. Cut off red motor wire (B) from both ends of motor cord.
5. Connect black wire (C) from motor and wet saw pigtail (C) to toggle switch terminal (E).
6. Cut off existing terminal on black power wire (D) and replace with push terminal supplied.
7. Connect new white pigtail to relay coil terminal (F).
8. Connect black power wire (D) with new push terminal to relay line terminal (G).
9. Install cover on switch box.
10. Saw operation. Push reset button only after loss of power. Normal saw operation is by toggle switch.

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# Trouble Shooting

For Greater Service and Efficiency
Careful Operation - Blade Consideration

<table>
<thead>
<tr>
<th>DIFFICULTY</th>
<th>REASON</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting out of line</td>
<td>Too heavy a feed or worn blade.</td>
<td>Reduce feed rate by adjusting frame weight or replace the blade. Replace worn guide bearings when they begin to show excessive wear.</td>
</tr>
<tr>
<td></td>
<td>Guides in wrong position.</td>
<td>Set as close to work as possible.</td>
</tr>
<tr>
<td></td>
<td>Guides out of alignment.</td>
<td>Follow adjustment instructions.</td>
</tr>
<tr>
<td></td>
<td>Set worn on one side of blade.</td>
<td>Keep brushes clean. Avoid teeth rubbing in cut by applying enough weight so that each tooth is cutting a good chip.</td>
</tr>
<tr>
<td></td>
<td>Starting cut on odd shape where blade does not contact flat surface.</td>
<td>Retard feed until blade has a good start in the material.</td>
</tr>
<tr>
<td>Stripping teeth</td>
<td>Blade teeth too coarse.</td>
<td>Be sure that two or more blade teeth are in contact with material being cut.</td>
</tr>
<tr>
<td></td>
<td>Hard spots on material.</td>
<td>Rotate stock, if possible. Do not put new blade in cut at same angle.</td>
</tr>
<tr>
<td>Breaking</td>
<td>Guides out of alignment.</td>
<td>Follow adjustment instructions.</td>
</tr>
<tr>
<td></td>
<td>Blade twisting.</td>
<td>Adjust guides as close to work as possible. Be sure material being cut is held firmly.</td>
</tr>
<tr>
<td></td>
<td>Lack of blade tension.</td>
<td>Always keep blade tight.</td>
</tr>
<tr>
<td></td>
<td>Dash Pot Malfunction</td>
<td>Check hydraulic fluid level and/or condition of cup leather.</td>
</tr>
<tr>
<td>Excessive wear</td>
<td>Blade speed too fast.</td>
<td>Follow recommended cutting speeds.</td>
</tr>
<tr>
<td>Blade running off wheel</td>
<td>Lack of blade tension</td>
<td>Always keep blade tight.</td>
</tr>
<tr>
<td></td>
<td>Improper wheel pitch adjustment</td>
<td>See instructions for wheel pitch adjustment.</td>
</tr>
</tbody>
</table>

Always use a light feed on new blades!