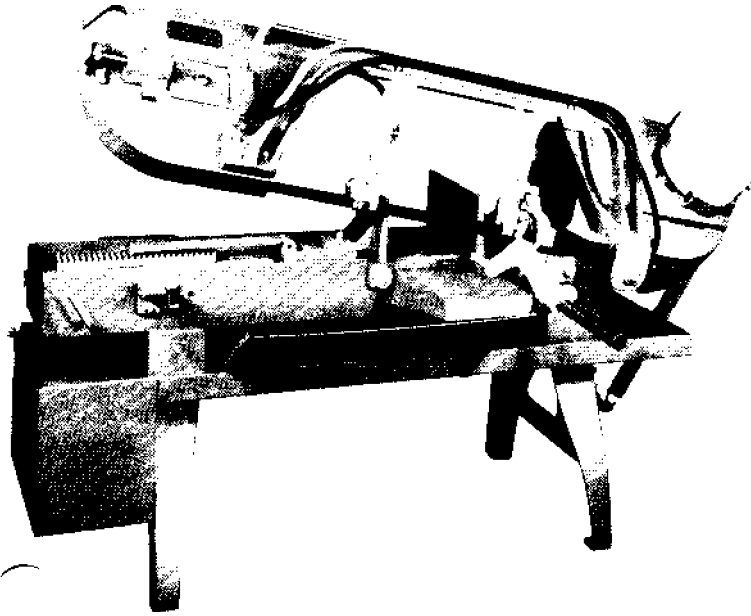


Wellsaw

OPERATING & MAINTENANCE INSTRUCTIONS MODEL 1000



PLEASE READ THIS MANUAL CAREFULLY
IT WAS PREPARED TO HELP YOU

The Model 1000 WELLS METAL CUTTING BAND SAW was designed for efficient performance, and with proper care will give you many years of dependable service.

After final assembly, each saw is inspected and subjected to a test run; no adjustment should be necessary.

This manual has been prepared to assist you in the proper operation and maintenance of your new WELLS Metal Cutting Band Saw. If you should desire additional information or assistance, we suggest you contact your dealer's service representative.

INSTALLATION

Upon receipt of machine, uncrate and check all parts. Report to your carrier any damage to machine and file Proof of Loss Claim with same.

Be sure motor specifications correspond with your power line.

Place machine so that each leg is carrying its share of the load.

Each machine is shipped with one all-purpose blade installed and ready for use.

SPECIFICATIONS

SEPTEMBER, 1971

Capacity:

Rectangular	10" high x 16" wide
Rounds	10" di a.
45' Angle	9" wide x 10" high
With special guides	24" (w) x 4" (h), 23" (w) x (h) or 21" (w) x 10" (h).

Selective blade speeds,

f.p.m.	50, 100, 175, 275
Motor	1 H.P.
Drive	"V" belt
Blade size	11' 6" x 1" x .035"
Swivel vise	to 45'
Height to top of bed.....	25e
Width of bed.....	10 ¹ / ₄ "
Floor Space.....	24" x 72"
Shipping Weight (approx.)	655 lbs.
with coolant system	705 lbs.

SECTION I — OPERATING INSTRUCTIONS CUTTING TIPS

1. For longer blade life, start each cut carefully.
2. For new blades, reduce feeding pressure on first two cuts.
3. Keep blade guides as close to vise jaws as possible.
4. Make sure all four legs are in solid contact with floor.

PLACING BLADE ON SAW

1. Raise frame to extreme height.
2. Remove idle wheel guard.
3. Remove blade guard on high side of frame.
4. Loosen blade take up screw and remove old blade.
5. Uncoil new blade. Make certain that the blade teeth point in direction of blade travel, which is toward the motor. If not, turn the blade inside out to have proper tooth direction.
6. Place new blade between the bearings of the roller guides and on band wheels.

7. Grasp blade on frame side and push toward guide bracket beam to hold it in position on wheels while turning hand wheel tension screw until blade is taut.
8. Start motor and tighten blade to proper operating tension. If blade slips while cutting, increase the tension.

AUTOMATIC STOP

When the saw blade has completed the cut through the material, the saw frame drops on a trigger. This operates a rod which opens the contacts in the switch and automatically stops the motor.

It will be necessary to raise saw frame clear of the trigger before machine can be started.

FIXED VISE JAW

The two pins in the fixed vise jaw should be kept in place in order to insure square cuts. For cutting angles, the pins must be removed and the vise jaws turned to desired position and tightened with clamp bolts. These pins enable operators to quickly relocate fixed vise jaw for approximate 90° cutting. For final and accurate adjustment, the vise jaw should be squared with the blade.

The sliding vise jaw should be loosened and pushed against fixed vise jaw, then tighten cap screw, leaving vise parallel.

SLIDING VISE JAW

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

MAXIMUM CAPACITY

To obtain maximum vise capacity, remove vise jaw pins and move fixed vise jaw toward motor end to the last holes. Make sure stock in vise will not strike the ratchet arm.

DASH POT

Machines are equipped with a dash pot (frame check) for the purpose of stabilizing the downward travel of the saw frame, thereby protecting saw blade from damage. The action is hydraulic and controlled by flow of fluid being by-passed through an orifice in the piston on the downward stroke.

Fill to within 1 inch of top of the bottom cylinder with Cities Services "Amplex 05" Hydraulic Oil or equivalent.

FRAME WEIGHT ADJUSTMENT

Before adjusting frame spring at motor end, remove the hydraulic dash pot and move sliding weight to rear position (motor end). The frame spring should be adjusted for approximately 16 pounds weight at frame handle.

SWITCH

A "STOP-START" switch is installed across the line to protect wiring and the motor. A heater coil breaks the circuit if an overload occurs. The operator should allow time for the coil to cool before trying to restart.

Automatic shut-off operates when saw frame contacts the switch trigger.

BELT

Pivoted mounting provides quick belt change. With the belt in pulley grooves for the desired speed, swing motor to put proper tension on belt. Tighten thumb screw to hold motor in operating position.

FEEDING PRESSURE

Variations in feeding pressure are made by moving weight on bar at top side of frame. Pressure on blade increases as weight is moved to forward end. The size and type of material governs the amount of feeding pressure required on the blade. Excessive pressure may cause a run-out of the blade.

SPEED SELECTION

Saws are equipped with step pulleys providing speed selection of 50, 100, 175 and 275 feet per minute. High speeds are suggested for cutting thin-wall tubing, channels, aluminum, brass, or any metal that will not burn the teeth; medium speed for general cutting such as cold rolled, machine steels, heavy channels, etc. Run in low speed for cutting nickel steels, or metal which requires a slow speed on a lathe. When cutting brass, use a blade which has not previously cut other metal, and apply bees-wax to the teeth.

If teeth wear off unusually fast, use a lower speed.

BLADE BRUSHES

Brushes should be cleaned frequently in kerosene and reversed to take advantage of both rows of bristles.

For efficient cutting and blade life, replace blade brushes when worn.

In bolting brushes to angles, be sure wire bristles are bent in the same direction the blade travels.

SECTION 11 — MAINTENANCE INSTRUCTIONS

BLADE GUIDES

The blade guides are arranged to hold the blade in alignment both vertically and horizontally.

Before making any adjustments, always try a new blade to be sure that the old blade was not causing the difficulty.

To align the blade horizontally, be sure fixed vise is square with the slot in top of bed, then square blade with vise.

For the vertical alignment, raise frame until blade just clears bed, then place edge of square on bed with end against blade, being careful not to contact tooth set. Use feeler gauge not to exceed .002", adjust blade so that feeler gauge will not enter at top or bottom between end of square and blade at both front and rear guides.

Adjust the side roller guides (100416-3) with the eccentric axle until both rollers contact blade. When this adjustment is made, the roller should be adjusted so that the PATH of the BLADE IS STRAIGHT and blade is not forced to curve around the rollers. The top roller guide (100406-2) should be in contact with top edge of blade at all times. When running idle, this contact pressure should be very light.

WHEEL PITCH ADJUSTMENT

LOOSEN BLADE BEFORE MAKING THESE ADJUSTMENTS!

If the blade runs too low or off the idler wheel, adjust the idler wheel block. Loosen, by one-half turn, the two cap screws in the block at the hand wheel end, and tighten by an equal amount the two cap screws in the opposite end of the block.

To make similar adjustment on drive wheel, loosen, by one-half turn, the two cap screws at motor end of the wheel plate. Then make pitch adjustment: loosen by one-half turn, the two hollow head set screws at the opposite end of plate, and tighten the two hex head cap screws at motor end of wheel plate. After final adjustment, make certain that all hollow head cap screws and set screws are tight.

If there is too much pitch on the wheel, the blade will run too high. This will cause the blade to become distorted, the top edge will be rolled over and the wheel rim flange will show excessive wear.

To correct this condition, loosen two cap screws at the end of idler wheel block farthest from hand wheel,

then tighten two cap screws at opposite end of idler wheel block. To reduce pitch on drive wheel, loosen two cap screws in drive wheel plate at the end opposite the motor, then match pitch adjustment by tightening two hollow head set screws at the same end of the wheel plate. The four cap screws should then be tightened to hold motor plate in a rigid and fast position.

LUBRICATION

Correct and adequate lubrication is a very important factor in determining the life and service to be obtained. It is imperative that all dust and dirt be removed before lubricating.

Texaco Marfax grade "0" grease, or equivalent, is used in the gear case. Other parts to be greased are as follows:

1. Vise adjusting screw. Use a heavy oil or light grease.
2. Keep internal ring gear and pinion well greased with a good quality fibrous type grease. (Medium grade).
3. Wheel ball bearings are lubricated with a good quality ball bearing grease.
4. Apply a few drops of machine oil to the frame pivot bar periodically.
5. For proper motor lubrication, follow motor manufacturer's instructions as stated on the motor.

HELPFUL SUGGESTIONS

1. To select the proper blade, consideration must be given to the type of material, as well as size and shape of stock to be cut. The WELLS-SELECT-O-CHART is a handy reference guide.
2. Use correct blade speed and pressure for each type of material.
3. Always keep blade at proper 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 feeding pressure for the first 2 or 3 cuts with a new blade.
6. Keep adjustable blade guide as close as possible to the material.
7. Keep blade brushes in contact with blade teeth at all times.

HOW TO ORDER REPAIR PARTS

Please provide following information:

- Model Number
- Serial Number
- Part Description and Number as shown in Parts List.

Address order to:

WELSAW, INC

2829 N. Burdick

Kalamazoo, Michigan 49007, U.S.A.

Telephone: 269-345-1132 FAX: 269-345-0095