



MODEL 490

## 15" WOOD BANDSAW

### OPERATING AND MAINTENANCE INSTRUCTIONS

A Bandsaw requires a reasonable amount of care and attention to insure perfect performance and accurate work, because no matter how good the manufacturer makes the machine, the operator must take reasonable care of it and familiarize himself with the proper method of using the machine and setting the adjustment for best result. It will take just a few moments to read and familiarize yourself with these instructions and they will probably save you a lot of trouble and time later.

#### INSTALLATION

Your Bandsaw is shipped in a crate and wrapped in waterproof paper. Remove the bolts that hold it to the crate and take away the paper. The surface of the table and the mechanism have been covered with a special grease to prevent rusting. Remove it with a grease solvent, but no paint solvent should be used as it will damage the paint.

Your Bandsaw is now ready to mount on a stand or bench. There are two stands available with this handsaw — #SS49 Steel Stand and #4900 enclosed steel Stand.

#### POWER REQUIRED

For average work and steady production a 1/2 H.P. capacitor motor should be used.

#### SPEED

For standard motor of 1725 R.p.m. a 2-3/4" diameter pulley should be used to give a correct speed of 750 R.p.m. to the wheels (3000 S.F.M.). Nothing will be gained by increasing the speed, except that the life of your blades will be shortened considerably. Be sure that the motor runs in the right direction, that is, the teeth of the blade should be moving downward towards the table, if not, reverse the rotation of the motor according to the instructions of the makers.

#### THE TABLE

The table of your Bandsaw tilts to 45° to the right and 10° to the left. The tilt to the right, the lock knobs under the



table is turned, loosening it. It is then tightened after the table has been tilted to the angle desired. To tilt the table to the left first the table is tilted to the right, then the stop sleeve #1935 on the screw at the left under the table is removed, then the table is tilted to the left until it rests on the screw. The setting of the table at 90° has been set at the factory but it should be checked to insure that it has not been disturbed in shipping. Screwing the screw up or down will place the table square, when set, lock in place. After the table setting is correct, adjust the pointer at zero so your scale will give you the correct angle when the table is tilted.

**GENERAL MFG. CO. LTD., 835 CHERRIER  
DRUMMONDVILLE, QUE., CANADA**

## IMPORTANT NOTICE

Working wood is inherently dangerous. Using hand or power tools improperly or neglecting standard safety practices can lead to permanent injury or death.

So don't try to perform operations you learn about in magazines, from friends or others until you're certain that they are safe for you and your shop situation.

We want you to enjoy your craft and to find satisfaction in the doing as well as in the finished work. So please keep safety foremost in your mind whenever you are in the shop.

GENERAL MFG. CO. LTD.

## SAFETY RULES

### Read carefully before operating the machine

- 1) Learn the machine's applications and limitations, as well as the specific potential hazards peculiar to this machine. Follow available operating instructions and safety rules carefully.
- 2) Keep working area clean and be sure adequate lighting is available.
- 3) Do not wear loose clothing, gloves, bracelets, necklaces, or ornaments. Wear face, eye, ear, respiratory, and body protection devices, as indicated for the operation or environment.
- 4) Do not use blade larger or heavier than the machine is designed to accommodate. Never operate a cutting tool at greater speed than recommended.
- 5) Keep hands well away from saw blade. Use a push stick or push block to hold or guide the work when working close to cutting tool.
- 6) Whenever possible, use properly locked clamps, jig, or vise to hold the work.
- 7) Be sure the power is disconnected from the machine before tools are serviced.
- 8) Never leave the machine with the power on.
- 9) Be positive that hold-downs and antikickback devices are positioned properly, and that the work-piece is being fed through the cutting tool in the right direction.
- 10) Do not use a dull, gummy, bent or cracked cutting tool.
- 11) Be sure that keys and adjusting wrenches have been removed before turning power on.
- 12) Use only accessories designed for the machine.
- 15) Adjust the machine for minimum exposure of cutting tool necessary to perform the operation.

### GENERAL guarantee

All component parts of GENERAL machinery are carefully inspected during all production stages and each machine is thoroughly inspected upon completion of assembly. Because of quality GENERAL agrees to repair or replace any genuine part or parts which upon examination proves to be defective in workmanship or material within a period of 24 months. In order to obtain warrantee, all defective parts must be returned prepaid to General MFG. Co. Ltd. Repairs made without our written authorization voids all guarantees.

## BLADE ADJUSTMENTS

The Bandsaw is shipped with a 1/4" blade. To change blades you must open the guard. Then the upper wheel is lowered by turning the knob placed vertically on the adjustment of that wheel, until the blade is loose. Remove the pin on the front of the table, then take the blade off the wheel and through the slot. To replace a blade this operation is reversed, and the upper wheel is raised until the blade is reasonably tight as indicated on the tension scale. Then replace the pin in the table.

The blade should not be loose to work properly and care must be taken that it is not too tight as this is a common cause of blade breakage, and other unsatisfactory blade performance. With a little experience the proper tension will be determined.

After the tension has been adjusted, loosen the upper and lower guide and guide pins by loosening the thumb-screws and the socket screws with the wrench supplied. Pull them back so the blade runs clear of them. Then turn the wheels forward by hand and watch if the blade travels on the center of the wheel if not, adjust by turning the knob, placed horizontal at the back of the upper wheel, until the blade "Track". Never adjust the blade while machine is running. Now check the blade setting by running the saw under power.

## SETTING THE GUIDES

The brackets carrying the guide pins should now be adjusted forward until the front edge of the guide blocks are just behind the gullets of the teeth. The guide blocks should not touch the teeth as they will be worn out and if they are too far back they will not give proper support to the blade. Lock the brackets in place. The guide blocks should be set as close as possible to the blade yet without binding, then tightened the screws that hold the blocks in place. The ball-bearing blade supports should be brought forward as near as possible to the back of the blade without touching it, and locked in place. The blade when running free should not bear against the support bearings, but have a clearance of about 1/64".

If the blade is allowed to run hard against the support bearings at all times, the back will become work hardened, and this will caused eventual breakage. The proper adjustments are very important for the correct operation of the bandsaw.

Be sure the readjust the guides every time a blade is changed, especially if blades of varying widths are used. After considerable use, the guide blocks will be worn at their front edges, causing a tendency to bind on the rear of the blade, then reverse the ends. When both are worn, grind them square.

## BLADE

Bandsaw blade are subject to tremendous strain, and if long use is desired, good care must be taken of them. Blades of the right tickness, width and temper for various type of work should be used. Always use the widest blade possible, using narrow blade for cutting sharp curves and delicate work only. This will save blades. Change and use wider blades every time that it is possible. This will lengthen the life of your blades and give more satisfactory work.

Blades should always be sharp and will set. If a blade is broken it can be brazed or welded, however, if it has become badly work hardened it will soon break in another place. Blades from 3/16" to 1" by 100" long can be used on the 15" GENERAL Bandsaw.

## OPERATION

Before running be sure the adjustments are right and that the guard are closed. Turn the wheels by hand before turning on the power, to be sure that everything is right. Keep the upper guide close to your work at all time. Do not force the work against the blade. A light touch will enable you to follow your line more easily and prevent friction with the bearing supports from heating the blade which causes work-hardening of the blade and shortens its life.

When the blade is sharp very little pressure is required for cutting. Do not twist the blade trying to cut a sharp curve, or a corner, use a narrow blade. When cutting curves turn the part slowly so the blade can follow the line easily without being twisted. Blade breakage is caused by any one of a number of conditions such as being the natural result of the peculiar stresses to which such saws are subjected, but it is usually caused by the lack of care or of judgement on the part of operator.

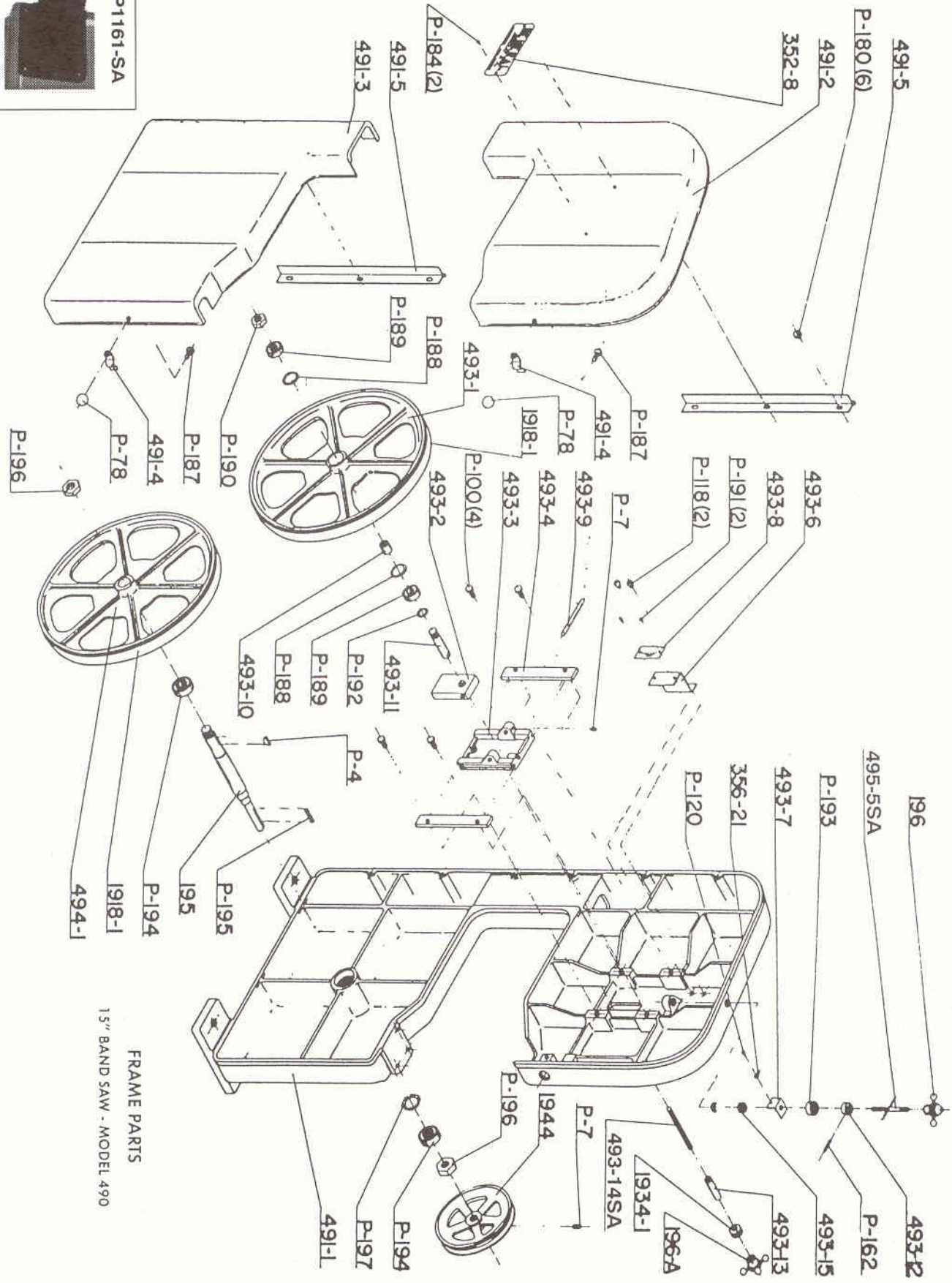
The most common causes of blade breakage are miss-alignments and miss-adjustments of the guides, forcing or twisting a wide blade around a narrow corner, dullness of the teeth or insufficient set, feeding too fast, blade too tight, top guide too high above work or using a blade incorrectly welded.

## LUBRICATION

The ball-bearings which carry the wheels and the ball-bearing blade supports are greased-sealed and require no lubrication for their entire life. No special care is necessary for the rest of the machine.

## GAUGE

The table of the GENERAL Bandsaw has a groove 3/8 inch by 3/4 inch to accomodate a miter gauge which enables you to cross cut at right angle or at any angle desired. A rip gauge can also be used to rip stock to 9" wide between blade and fence. It can be used on both side of the blade and the full width of the table.



FRAME PARTS  
15" BAND SAW - MODEL 490

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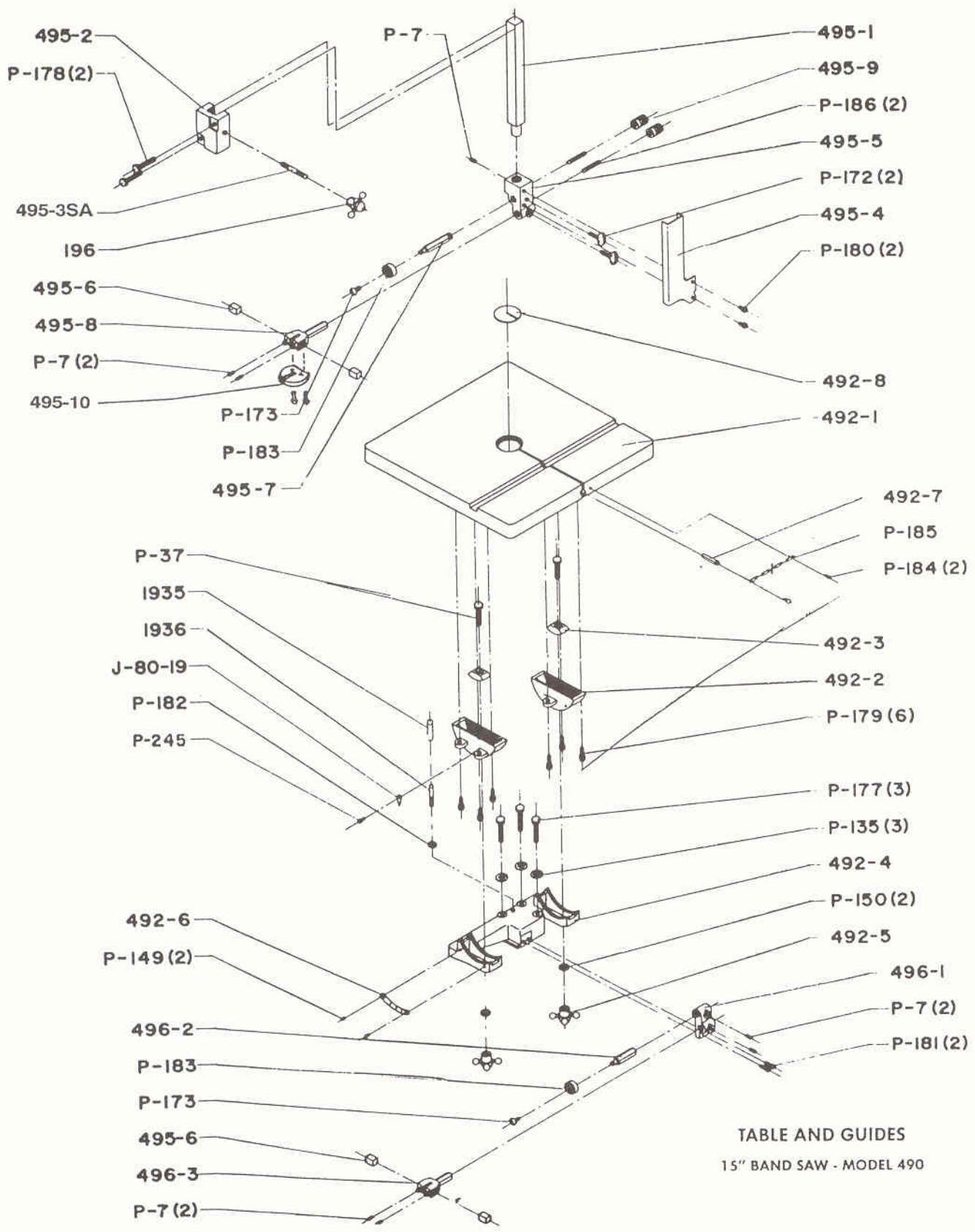


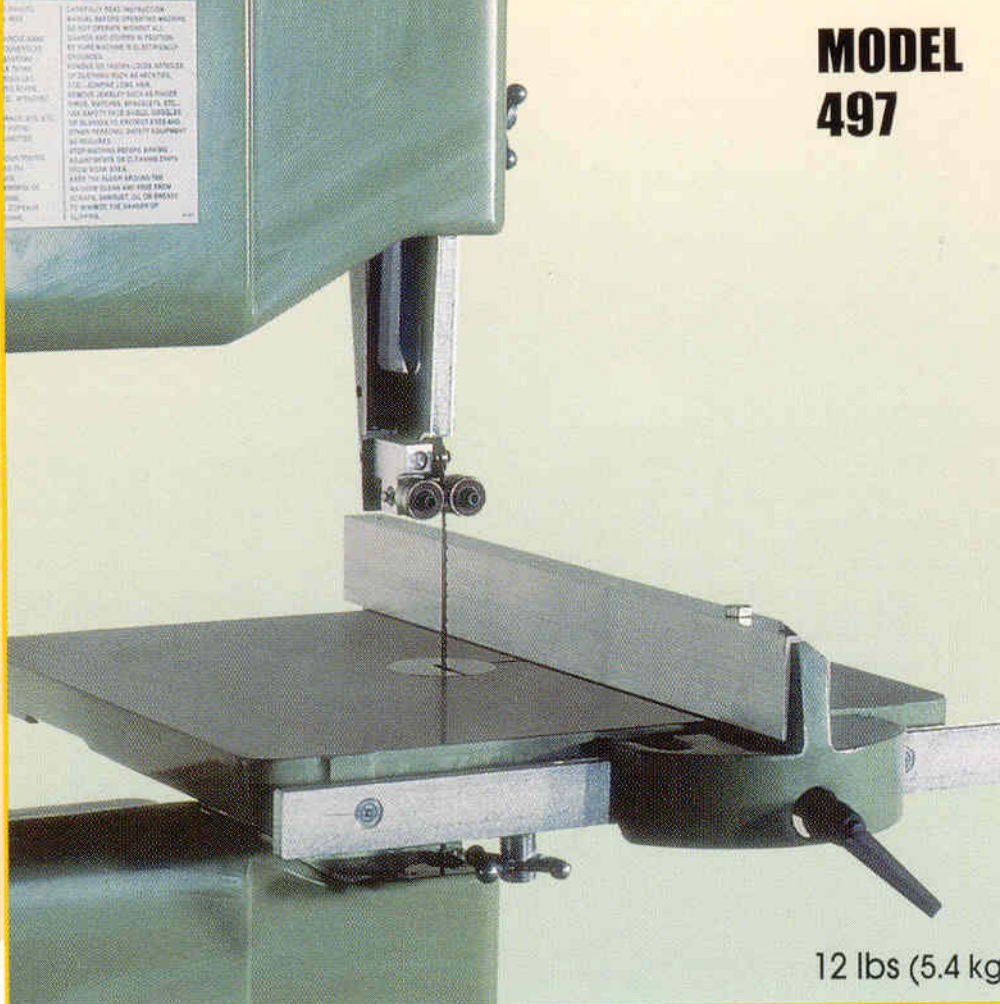
TABLE AND GUIDES  
15" BAND SAW - MODEL 490

490



SAFETY READ INSTRUCTIONS  
 BEFORE OPERATING ANY MACHINE  
 TO GET OPERATE MANUAL ALL  
 GUARDS AND CONTROLS IN POSITION  
 BY THIS MACHINE IS ELECTRICALLY  
 INSULATED.  
 POWER OR MOTOR-COILS WINDING  
 OF ELECTRICAL SUCH AS MOTOR,  
 ETC. - SHOULD BE KEPT AWAY  
 REMOVE OVERLAY SUCH AS RUBBER  
 STRIPS, WAXPAPER, SPRAYED, ETC.  
 FOR SAFETY TO THE USER. WINDING  
 OF ELECTRIC TO KNOWLEDGE AND  
 OTHER READING. SAFETY EQUIPMENT  
 IS REQUIRED.  
 STOP MACHINE BEFORE MAKING  
 ADJUSTMENTS TO OR REMOVING  
 FROM WORK AREA.  
 ALWAYS THE USER SHOULD THE  
 MACHINE GUARD AND FREE FROM  
 SCRAP, SAND, OIL OR GREASE  
 TO AVOID THE HAZARD OF  
 SLIPPAGE.

# MODEL 497



12 lbs (5.4 kg)