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INSTRUCTIONS FOR #82203 MICROLUX BAND SAW

Note: If you purchased the optional #82211 Cooling Set for use with this band saw, please also use the instructions that came with the cooling set to set up your band saw properly.

Caution: Mounting, assembly and adjustments should be carried out with the machine disconnected from the electrical power source. For your own safety, do not plug in the power cord until you are ready to operate the machine.

Mounting the Machine

Carefully unpack the band saw. Save the packing materials should you ever need to return the machine to us for any reason.

Place the saw into position on your workbench. Using the wood screws provided in the parts bag, attach the band saw to your workbench…***it is important for your safety that the saw be securely mounted.*** For portability, the saw may be mounted to a piece of 3/4" thick plywood; the plywood can then be secured to your workbench with C-clamps.

Tilt-Table Assembly

Remove the brass fitting from the slot in the saw table. Remove the black table-lock knob and spacer from the machine housing. Move the table into proper position on the saw. Replace the knob and spacer to lock the table into position. See **Figure 1**. Replace the brass fitting in the saw table.

Adjustments

Although certain basic adjustments have been made at the factory, it is good practice to double-check these settings to assure proper initial operation; transportation and unpacking may have altered them. The most important adjustments on a band saw are blade tension and tracking. You most likely will not have to make these adjustments, but, if you do, please follow the instructions below.

The blade tension is adjusted as follows: First, back off the blade guides so they don't touch the blade; use the supplied medium-size hex key to loosen the screws holding the blade guide rollers and move them away from the blade. Now use the supplied large-size hex key to loosen the four screws holding the machine cover to the frame; remove the cover. Slightly loosen the large blade tension lock knob located on the machine housing behind the upper (idler) wheel; the knob should be loose enough to allow vertical movement of the drive wheel, but tight enough to keep the washer under the knob in contact with the machine housing. See **Figure 2**. Next, carefully rotate the blade tension adjustment knob so that the blade will have enough tension to prevent slippage on the drive wheels, but not be so excessively tight to cause breakage of the blade or premature wear of the drive system bearings. A good rule of thumb is to tighten the top knob as tight as you would tighten a water tap. Tighten the lock knob after the blade tension has been adjusted.

To adjust blade tracking: Rotate the drive wheels by hand clockwise to assure the blade is tracking properly...usually up against or very near the flange on each wheel. If adjustment is needed, use the supplied small-size hex key to loosen the set screw holding the slotted guide pin located under the table near the lower (drive) wheel. See **Figure 3**. Adjust the position of the guide so that the saw blade tracks properly and retighten the set screw.

The blade guide rollers should now be adjusted to lightly contact the rear and sides of the blade; they should guide and support the blade to prevent blade deflection during sawing operations. Retighten the screws when adjustment is complete. Recheck the blade tracking by again turning the wheels clockwise by hand. Replace the machine cover.

Operation

You may now plug your band saw into the power outlet. Turn on the power switch and quickly check for proper blade tracking. Turn off immediately if the saw blade tracks improperly and remedy the problem. If the blade tracks OK, rotate the speed control knob to get a feel for the machine operation. When you are ready to saw your first piece, be sure the height of the blade guide is adjusted to just clear the top surface of the workpiece...loosen the knob behind the guide bar and adjust. This will assure the most accurate cut.

Your MicroLux Band Saw is a versatile tool which can be used in a variety of projects. Several factors affect cutting speed: the intricacy of the pattern, the material thickness, the material hardness and the condition of the blade. Do not force the work through the blade. Give it time to cut properly. Allowing the work to "float" while cutting will prolong the life of the blade.

Adjust the speed of the band saw to achieve proper cutting action. General guidelines suggest using slow speeds for hard materials and fast speeds for soft materials. A little experimentation will determine the optimum setting for the job at hand. For angled cuts, the table may be tilted by loosening the table lock knob and tilting the table to the desired angle shown on the scale.

We have included the following chart to help you select an initial cutting speed, but this is only a guideline; final speed selection is determined with experience.

MATERIAL	BLADE	SPEED RANGE
Stone and Gemstones	Diamond	1–3
Tile	Diamond	2–5
Ceramics and Earthenware	Diamond	1–4
Glass and Stained Glass	Diamond	2–5
Fiberglass Reinforced Plastic	Diamond	1–6
Soft Wood	Toothed	1–6
Hard Wood	Toothed	1–5
Acrylic Plastic	Toothed	1–5
ABS Plastic	Toothed	1–6
PVC Plastic	Toothed	1–6
Aluminum	Toothed	1–5
Copper	Toothed	1–5
Brass	Toothed	1–6
Steel	Toothed	1–4

All toothed blades will cut steel, brass, copper, plastic and wood. Blade selection is based on material hardness, cutting speed and finish. Use coarse-toothed 14 tpi (teeth per inch) blades for fast, aggressive cutting of thick or soft materials. Use fine-toothed 24 tpi blades for smooth cuts in thin or hard materials. .138" wide blades will cut curves down to 3/8" radius; .180" wide blades down to 3/4" radius; .250" wide blades down to 1" radius. Wide blades are best for straight cuts. Order additional blades as follows:

#82204 Toothed Blade .138" wide x .031" kerf x 14 tpi
#82205 Toothed Blade .138" wide x .025" kerf x 24 tpi
#82206 Toothed Blade .180" wide x .031" kerf x 14 tpi
#82207 Toothed Blade .180" wide x .025" kerf x 24 tpi
#82208 Toothed Blade .250" wide x .031" kerf x 24 tpi

#82209 Diamond Blade for cutting stone, tile, glass, etc. Must be used with cooling set below. .125" wide x .025" kerf

#82211 Optional Cooling System for Band Saw
Required when cutting stone, tile, ceramics, gems, minerals, glass and other hard materials. Reservoir and adjustable valve dispense water directly on the cut to lubricate and cool the blade, preventing overheating and premature blade failure. Unlike other water bath machines, ours won't splash water all over you and your workbench. Includes reservoir, valve, tubing, gasket, 12" x 16" collection tray and hardware.

Blade Changes

To change a blade, remove the gray machine cover and also the brass fitting from the saw table. Reduce the blade tension until the blade can be slid off the drive wheels. Installation is the reverse of removal. Be sure the cutting edge is facing the front, the saw teeth are facing downward, and that the tension and blade guides are readjusted as per the directions given above.

Maintenance

Maintaining your band saw in top condition requires only proper cleaning and adjustment. An excessive build-up of waste materials would ultimately find its way into the working parts of the machine and cause premature wear. Frequently clean out your band saw to prevent excessive waste build-up. The port on the lower back side accepts standard 1-1/4" vacuum hoses.

Keeping the blade tension and blade guides adjusted properly will prevent blade warp and assure proper blade tracking. Check these adjustments often to assure continued trouble-free performance of your band saw.

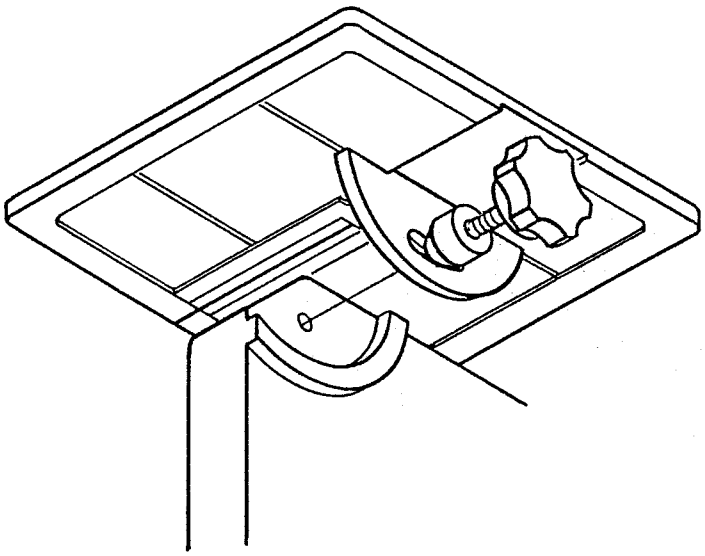

Figure 1

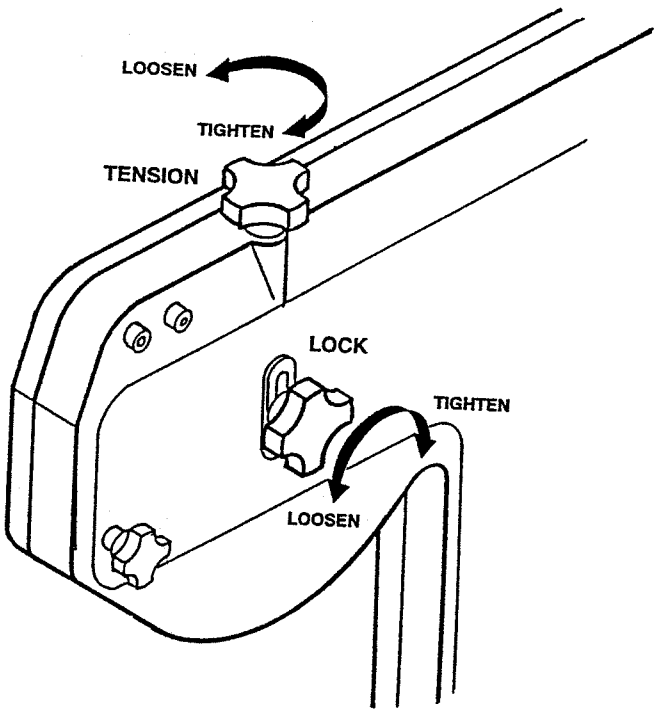

Figure 2

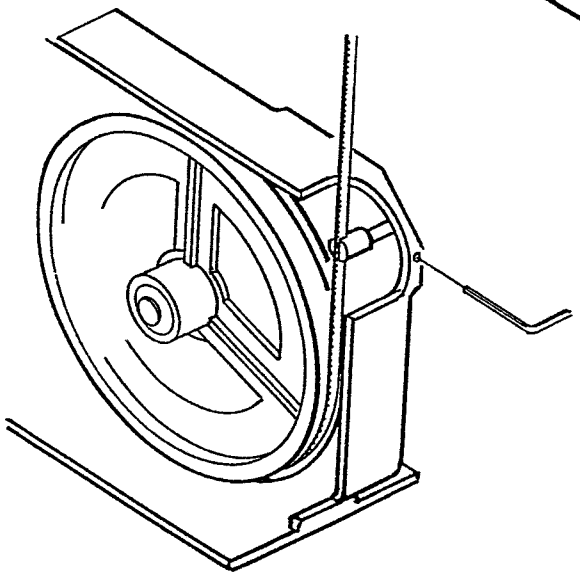

Figure 3

MicroLux Band Saw #82203