



Diamond Laser 7000 Band Saw
Operations Manual

“Simple, Safe and Easy to Operate”



Diamond Tech International

Diamond Laser 7000™

SAFETY INSTRUCTIONS

- **Be sure the power switch is in the OFF position** before plugging in this tool.
- **Wear proper apparel.** Never wear loose clothing, gloves, neckties, or jewelry. These articles may become caught in the saw's moving parts.
- **Always hold material being cut firmly against cutting table.** Adjust the upper Blade Guide so it is as close to the work piece as possible.
- **Never turn on machine with scrap or working material touching the blade.**
- **Keep children away from this tool** and all power tools.
- **Never leave tool running unattended.** Turn power off when not in use.
- **ALWAYS WEAR SAFETY GOGGLES.** Everyday eyeglasses have only impact resistant lenses; they are not safety glasses.
- **Disconnect tool before servicing.** Ensure this tool is ready to use before plugging in.
- **Feed work material forward at a slow easy pace into the blade.** Avoid sudden twisting of the blade; which may cause kinking or breaking of the blade.
- **Remove all keys and wrenches before using tool.** Leaving keys and wrenches attached while operating this tool may result in damage to the machine and operator.

Contents

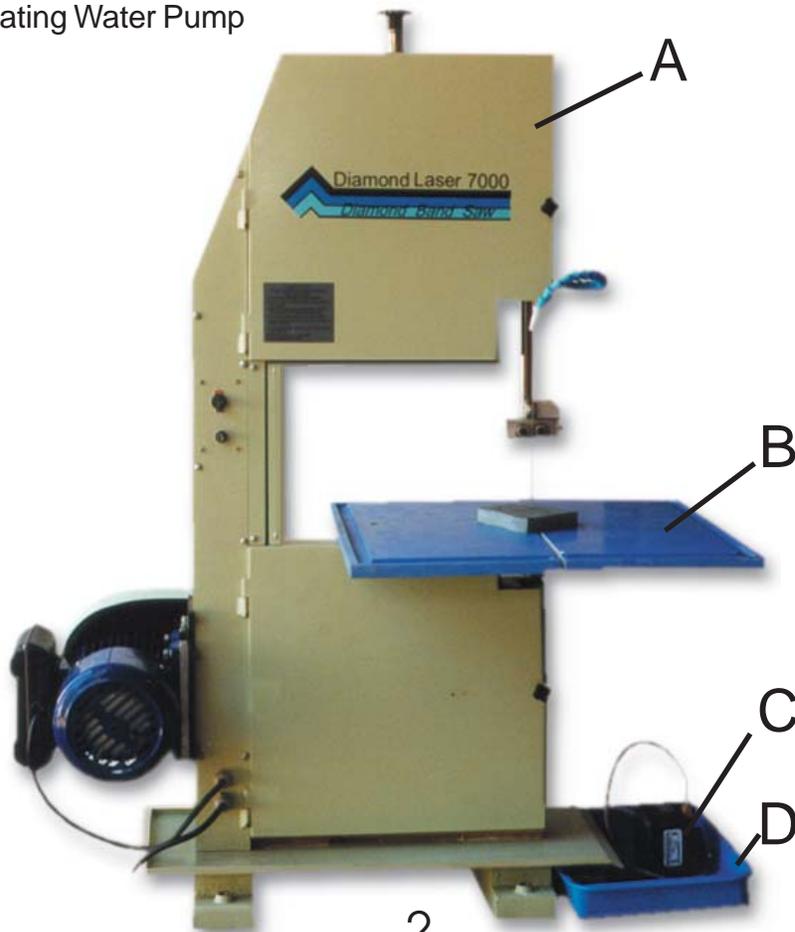
A-Band Saw

B-Cutting Table

C-Recirculating Water Pump

D-Detachable Water Reservoir

Hex Wreches Wrenches (not shown)

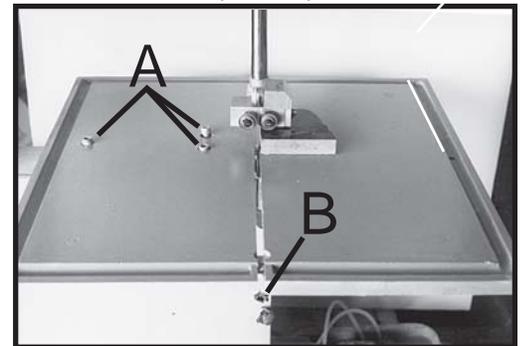


ASSEMBLING THE DIAMOND LASER 7000 SAW

A. Table Installation

- 1) Unscrew the bolt with butterfly nut (b) FIG. 1 at the front end of the cutting table.
- 2) Unscrew the three hex bolts (A) FIG. 1
- 3) Position cutting table into place by pulling it forward so the blade reaches the center of the table by traveling through the groove provided.
- 4) Once properly positioned, replace the three hex bolts (A), and the bolt with butterfly nut (B) FIG. 1.

(FIG. 1)



B. Water Pump Installation

- 1) Position the water reservoir under your saws right base lip, as shown in Fig. 2.
- 2) Place the nozzle located near the top blade guide in the hole provided, so that the hole in the nozzle is pointed towards the blade.
- 3) Install brass fitting on water pump and connect hose to fitting.
- 4) Fill the water reservoir up to 1/2" from the top, as shown in Fig. 2.
- 5) Plug pump and saw into any grounded electrical outlet.
- 6) Turn on the main power switch located on the left side of your saw.
- 7) The pump may need to be primed before operation. Turn the pump on its side so that the brass fitting is pointed up. After pump is primed turn the grilled face down into the water.

(FIG. 2)



OPERATING THE DIAMOND LASER 7000 SAW

A. Starting and Stopping Saw

The power switch is located on the left side of the band saw. Be sure the power switch is in the **OFF** position before plugging in the DL7000. (See Fig. 4)

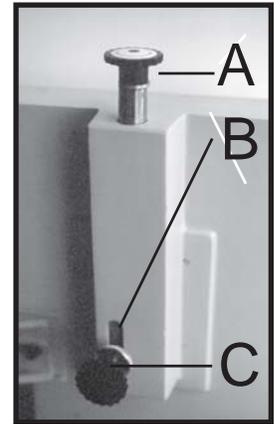
(FIG. 4)



B. Adjusting Blade Tension

To adjust the blade tension, turn the Blade Tensioning Knob (A) located on the top of the saw clockwise. The blade should be tight enough so the blade twists only slightly on curved cuts, and not at all for straight cuts. (See Fig. 3)

(FIG. 3)



C. Blade Alignment

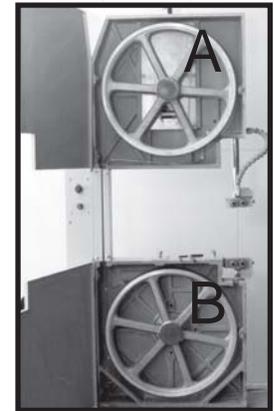
If the blade is not centered on the top wheel, an adjustment in the tilt of the top wheel may be necessary.

NOTE: The blade may not be centered on the lower wheel when the blade is properly adjusted on the top wheel. (See Fig. 5)

1) If the blade is forward of center on the top wheel, loosen the Locking Knob (B) and turn Adjusting Knob (C) clockwise. Rotate wheels by hand and adjust until blade is centered on upper wheel. Retighten Locking Knob. (See Fig. 3)

2) If the blade is to the back of the upper wheel, loosen the Locking Knob (B) and turn Adjusting Knob (C) counter clockwise. Rotate wheel by hand and adjust until blade is centered on upper wheel. Retighten locking knob. (See Fig. 3)

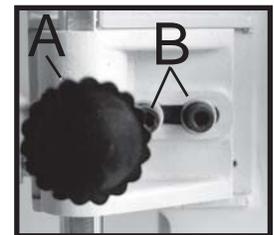
(FIG. 5)



D. Adjusting Upper Blade Guide Assembly

Never Adjust the Blade Guides or Assemblies while the saw is turned on, or in motion.

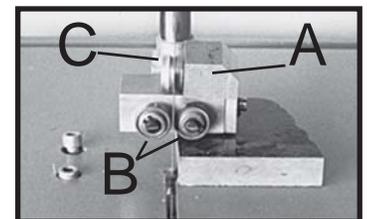
The Upper Blade Guide Assembly (A) Fig. 7 should be placed as close to the work material as possible, with no more than 1/4" between the material and Blade Guide. To adjust height, loosen knob (A) Fig. 6 and slide Blade Guide Assembly to the desired position. Retighten knob once correctly placed.



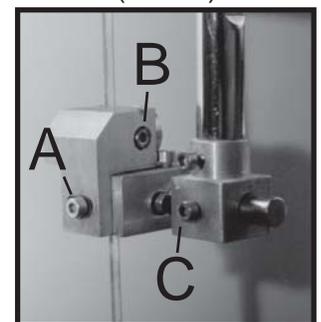
(FIG. 6)

E. Adjusting Upper Blade Guide

Adjust Upper Blade guides with Blade in center of Roller bearings (B) Fig. 7. Loosen hex bolts in Fig. 6 (B) to adjust left or right and retighten. Loosen hex bolt (C) Fig. 8 to adjust Blade Depth in Roller bearings to 1/4 of Blade depth and retighten. Adjust blade backstop (C) Fig. 7 approximately 1/4 of Blade depth behind Blade. Use hex bolt (A) Fig. 8 to adjust. Use hex bolt (B) Fig. 8 to adjust blade back stop left or right. NOTE: Blade should not touch Backstop until pressure is applied with material to be cut.



(FIG. 7)



F. Adjusting Lower Blade Guide

Adjust Lower Blade Guides with Blade in center of Roller Bearings. Loosen Hex Bolts in (A) Fig 10 to adjust left or right and retighten. Loosen Hex Bolts (B) Fig. 10 to adjust Blade Depth in Roller Bearings to 1/4 (A) Fig. 9 of Blade Depth and retighten. Adjust Blade Backstop Fig. 9 (B) approximately 1/4 of Blade Depth behind Blade. Use Hex Bolt (C) Fig. 10 to adjust. Use the Hex Bolt (D) Fig. 10 to adjust Blade Backstop left or right.

NOTE: Blade should not touch Backstop until pressure is applied with material to be cut.

G. Replacing Blade Guides

Replacing Blade Guides is necessary after considerable wear. All Diamond Tech International's Replacement Guides come with specific instruction on replacements, and can be purchased wherever Diamond Tech International products are sold.

H. Changing Blades

Turn power off and disconnect the machine from power source, and open the front panels of the saw. Release blade tension by turning the Blade Tension Knob (A) counter clockwise. See Fig. 3 Remove the Hex Bolt with Butterfly Nut on the front of the cutting table (B) Fig. 1.

Remove old blade and replace with new blade, making sure the diamond coated edge is facing the front. NOTE: Only replace blade with Diamond Tech International's DL7000 Diamond Band Saw Blade.

Retighten the Blade Tensioning Knob (A) Fig. 3 making sure the blade is centered on the top wheel (A) See Fig. 5 Manually turn Wheels to ensure proper tracking before closing front panels.

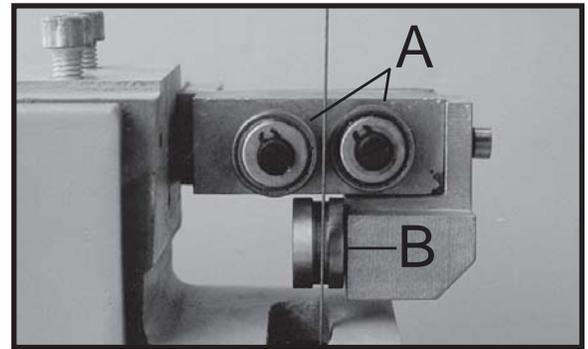
A Note On Blade Wear

Breaking blades is the most common problem encountered by new band saw owners. This is often caused by forcing the work material into the blade, which in turn causes the blade to twist and break.

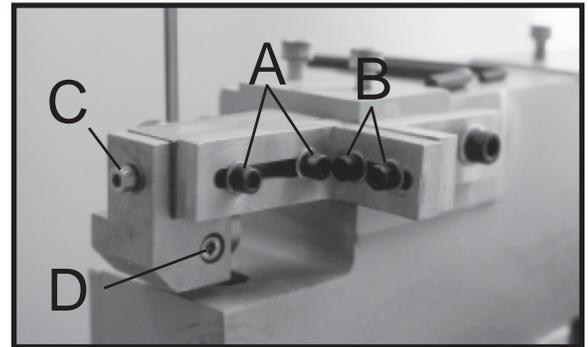
Trouble Shooting Guide

- Problem: A small amount of surface rust has appeared on some of the steel parts.
Solution: This rust is removable with light machine oil or WD40 and does not effect the function or life of the saw.
- Problem: Water pump sounds like it's running, but no water is being pumped through.
Solution: The nozzle may be clogged or the pump needs to be primed. To prime the pump, insure the water level in tray is 1/2" from the top or less. Turn pump with brass nipple facing up. After unit has primed itself, submerge the pump screen face down in the water tray.

(FIG. 9)



(FIG. 10)



Trouble Shooting Guide

Problem: Work material becomes jammed.

Cause: Twisted blade: Caused by work material being forced.

Solution: Before freeing any jammed material:

1. Turn off power switch.
2. Open front panels of the saw.
 - Rotate top wheel assembly counter clockwise until blade is freed from work material.
 - Hold Blade firmly against Blade Guide Assembly to prevent the Blade from being pulled or stretched while you are disengaging you material.
 - Maneuver work material around the blade until free.

Problem: Blade twists, poor cutting accuracy

Cause: Blade tension too loose (see "Adjusting Blade Tension" page) or worn Blade Guides

- Solution:
1. Adjust Side Guides on both Upper and Lower Blade Guide Assemblies as close as possible to the sides of the Blade, being careful not to pinch the Blade.
 2. Change Blade guides if necessary.
 3. Push material against Blade at a slower rate.

Tips on Using Your Laser Band Saw

- Do not force material into the Blade. Allow the work to glide smoothly. Avoid twisting the blade on tight curves.
- Use a waterproof pen to mark your pattern on the material.
- Glass cutting sludge may set up hard, so avoid putting sludge down plumbing drains.
- To back out of a cut, turn saw off and slowly ease the material away from the blade.
- Two or more pieces may be cut at the same time by "stacking" them together using "tacky wax" or double-sided tape.
- Clean thoroughly and loosen blade tension when saw is not in use for extended periods.

DIAMOND TECH INTERNATIONAL, USA *Diamond Laser 7000 One Year Warranty*

All **DIAMOND TECH INTERNATIONAL** machines and accessories are manufactured to high quality standards and are inspected by highly qualified technicians. To obtain additional information regarding your quality product or to obtain parts, service, or warranty assistance, please call our toll-free number (800) 937-9593, send a fax to (813) 806-1988 or e-mail info@dtcrafts.com

The **DIAMOND LASER 7000** is warranted to the original purchaser for one full year from the original purchase date. During the one year period, a defective *DL7000*[™] will be repaired or replaced when the machine is returned, prepaid to **DIAMOND TECH INTERNATIONAL**. If the *DL7000*[™] suffers damage due to customer modifications and/or is used for any application other than that for which it was designed this warranty is void. The *DL7000*[™] is warranted against defective materials or workmanship. This warranty does not include damage due to: a) neglect; b) accident; c) unreasonable use; d) improper maintenance; e) or any other cause not attributed to defects in material or workmanship. This warranty specifically excludes the Diamond Laser Steel Blade and Blade Guide Sets.



Diamond Tech International

Manager Of Technical Services

5600-C Airport Blvd., Tampa, Florida 33634

HELP LINE 800-937-9593 (inside the U.S.)

813-806-2923 or FAX: 813-806-1988