

# *The Eclipse Scroll Saw*



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## *The Eclipse Scroll Saw*

The Eclipse Scroll Saw was first introduced at the 1998 Pennsylvania picnic. While this scroll saw looks like the old spring return saw with its straight up and down action, that is where the similarity ends.

The Eclipse Scroll Saw frame utilizes a heavy-walled aluminum sand casting frame for its rigidity. The rigidity of conventionally designed saws is dependent on the

blade holder mountings, the material and construction of their arms, and how it's all supported. The moving mass of the arms must be counter balanced to minimize vibration. This movable mass does not exist in the ECLIPSE saw. Instead of moving parallel arms, C arm or link drive components that cause much of the vibration in other saw designs, the ultra-light Oscillating Drive Loop System makes the ECLIPSE nearly vibration free.

The 1.5" blade stroke is great for intarsia. This longer stroke spreads the heat and wear over more of the blade making it last much longer and clears sawdust better. This saves you both time and money.

Since it has a true vertical blade action (ideal for marquetry and intarsia) and a positive pull from the top to bring the blade to the top of the stroke. Blade breakage is all but eliminated thus you won't mind using a tool for the lower blade clamp.



## *Safety and Warranty*

### **Safety Instructions:**

- Turn off, remove and secure the power key from the rear of the saw when not in use to prevent unauthorized use.
- Remove clamp tool from lower blade clamp before operation
- Stay alert. Always focus closely on what you are doing. Do not operate the saw when you are tired.
- Keep guards in place. Make sure guards are in working order and in proper adjustment and alignment.
- Use of a dust mask and safety glasses are recommended. Never reach under the table while the saw is running.
- If an extension cord is used, be sure it is grounded and the wire gauge is correct for its length to handle 18 amps.

### **Eclipse Limited Warranty:**

- 30 day, no question asked return policy
- 5 year limited warranty defects in material and workmanship
- 3 year replacement of any mechanical part that wears out.
- The obligation of Eclipse is limited to providing replacement parts and detailed written instructions and drawings for making the repair. We will be glad to stay with you to talk you through the repair if necessary. In the event you cannot make the repair you can ship it to us and we will fix it and return it to you. This warranty is void if the machine has been modified, altered, or tampered with. If it is used to cut abrasive materials such as but not limited to fiberglass, stone, etc. that will damage the bearings. Never do lubricated or wet sawing on this machine.
- DO NOT ALTER OR MISUSE SAW. This saw is precision built any alteration or modification not authorized is misuse and may result in a dangerous condition.

## *Additional Features*

- The main switch to the saw is located on the rear panel and has a removable key to prevent unauthorized use of the saw. It also cuts off power to the transformer, hour meter, indicator and other components when not in use.



- Never rotate the air nozzle more than 90° from the down position, this will twist and kink the hose inside the jointed hose.



- Occasionally clean out the head of the clamping screw for the lower blade clamp with the end of the blade. This will make the screw and wrench last longer.

## *Eclipse Features and Operation*

1. **Removable Key** - allows power to the saw and is located on the rear of the saw. The key is located on the panel holding the saw's integrated circuitry and fuses. The saw will not operate unless this key is turned to the on position as seen in the picture.



2. **Control Panel** - The saw's are conveniently located on the front of the upper saw frame. The center knob adjusts the speed (stroke per minute) of the saw. The on and off switches are located to the right. The switch for the light is located to the left. The lamp contains a low voltage halogen bulb. Do not touch the bulb with your bare fingers since halogen bulbs can be damaged by the oil from your skin. Use caution when adjusting the lamp since it get quite hot with operation.

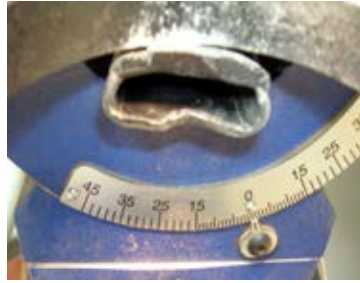


3. **Hour Meter** - Located above the speed control knob. The red **R** is pressed to reset the meter to zero. The meter runs as long as the power key is turned on. When power to the saw is turned off, the meter stops running but retains its time until it is reset.



## *Eclipse Features and Operation*

**4.** **Tilting Table** - The saw table is tilted by loosening the clamp lever under the table. The lever is pulled upward and rotated as needed. The graduated gauge for setting the table angle is easily read through the table insert opening.



**5.** **Oil Reservoir** - A special oil (Mobil Vactra #2) designed for linear movement bearings is used to lubricate the upper and lower blade holders. Use of any other oil will void the warranty. Refills are available from Eclipse or any machine shop. The reservoir bubble should never be filled above the level shown. Note the fill cap is opened so it is pointing straight up. It will go further, but doing so will weaken the spring and possibly allow dust into the oil reservoir.



## *Steps to Tension the Blade*

**4.** **Tension Lever** - Move the tension lever to the on position slowly. If the blade starts to get tension on it, turn the **Tension Knob** counterclockwise until the blade does not have any tension in the full on position. In the full on position there should be no tension on the blade.



**5.** **Setting Tension** - Begin turning the tension knob clockwise while plucking the blade like a guitar string. When the blade makes a ping sound the tension is close. Generally middle "C" on the musical scale is a good place to start for a # 5 blade. Once you adjust the blade with the proper tension you desire the tension knob will not need to be adjusted again as long as you are using the same kind of blade. If you change to a different size or brand of blade you will have to adjust the tension knob again.

**6.** **Tip** - A common error is placing too much tension on the blade. This is demonstrated when the saw is turned on it will run for several seconds and then shut off. An important tip to the proper amount of tension is that as you move the tensioning lever forward you should not feel any tension on the blade until the tension lever reaches the **2 O'clock position**.



## Steps to Tension the Blade

1. The first thing you need to understand is that the tensioning system and saw rigidity of the Eclipse is capable of putting far more tension on a blade than any other saw. What you feel in the tension lever as you move it to the **Tension On** position is putting much more tension on the blade than what you were accustomed to feeling with your previous saw's tension lever. Take time to adjust the tension as described below to get the feel of the Eclipse's tension lever.

2. **Tension Lever**- Pull the tension lever forward in the full on position in order for the saw to run. The saw will not run in the off position.



**Tension On**



**Tension Off**

3. **Tension Knob** - located on the lower side of the upper arm. Turning it clockwise decreases tension, clockwise increases tension.



## Steps to Install the Blade

1. **Tension Lever** - Make sure the tension lever is turned to the tension off position. The lever should be pointing towards the rear of the saw.



2. **Lower Blade Clamp** - The blade is installed from the rear of both the upper and lower blade clamps. The lower blade clamp is viewed from above. The V notch formed by the two halves of the clamp aids with insertion of the blade.



3. **Down Stroke Position** - Push the lower blade clamp to the full down stroke position. Place a blade in the clamp so the blade is down as far as it will go in the clamp and up against the clamp screw.



## Steps to Install the Blade

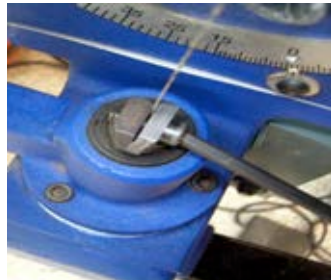
**4. Blade Placement** - Half of blade clamp is removed showing proper placement of the blade.



**5. Upper Blade Clamp**- Pull the upper blade clamp to the full down position. Position the blade so that it is against the screw just behind the center of the clamp screw and against the bottom of the stop before the bottom clamp is tightened to hold the blade.



**6. Clamp Tightened** - Using the wrench provided tighten the blade so that it is firmly held in place.



## Steps to Install the Blade

**7. Upper Blade Clamp** - Now that the blade is straight up and down it can be installed in the upper blade clamp. Gently push the blade into the V-notch on the back side of the upper blade clamp and hold it against the blade clamp screw. Pull the upper blade clamp down until it touches the top of the blade and tighten. (Do not over-tighten) Adjust the clamping lever to a position of your liking by pulling outward on the lever until you see the black band and index it to the desired position. Never leave the lever pointing downward since it may hit your fingers while sawing. You are now ready to tension the blade

**Caution** - Pushing the blade in the clamp too hard will bow it beyond straight up and down. When tensioned the blade will be bent.



