



# Scroll Saw Safety Rules

A scroll saw is an electric saw useful for cutting intricate curves where a jigsaw or coping saw is not appropriate. It is somewhat similar to a band saw, but the bandsaw's blade is a continuous loop and is typically much more robust in terms of size and strength. Scroll saws use saw blades similar to those used on coping saws and operate through a quick reciprocating up and down motion. The Scroll Saw is probably one of the safest tools in the shop, but still there are a few cautionary steps that should be taken to ensure that operation is as safe as practical! To avoid accidents, the following safety rules must be observed by everyone working on the Scroll Saw. Failure to follow these safety rules can result in personal injury or injury to others and can result in a loss of shop privileges.

## **Start with a Risk Assessment to ensure a safe work area:**

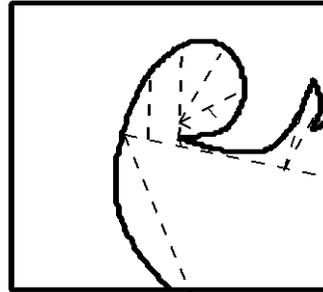
1. Follow all procedures in **CHARLOTTE WOODWORKERS' ASSOCIATION Shop Rules and Guidelines.**
2. Firmly secure the scroll saw to a tabletop, the workbench, the top of a cabinet, or to the floor if the Scroll Saw has an integrated base.
3. Ensure that the saw is turned **OFF** before plugging it in.
4. A four (4) foot perimeter around the scroll saw should be kept clear of people and debris that could impair traction or footing to avoid potential slips and falls.
5. Safety glasses with side shields or a face shield must be worn. Everyday eyeglasses are only made of impact resistant glass, they aren't safety glasses. If you're not wearing actual safety glasses, wearing safety goggles over your regular glasses can provide the protection you need.
6. Hearing protection should be worn.
7. Use the appropriate mask or respirator in dusty work conditions.
8. Check for damaged parts and proper operation. Before using the Scroll Saw, check for any damaged parts, including the hold down foot that holds the work against the saw table, and check for proper operation. Check the alignment of moving parts, check for binding of moving parts, check for broken parts, saw stability, mounting and any other conditions that may affect safe operation. A damaged part must be properly repaired or replaced to avoid risk of personal injury.
9. Remove loose fitting clothing and jewelry.
10. Tie back, or otherwise secure, long hair.
11. Give the work your undivided attention.

## **Operational Safety Rules:**

1. Approach your work in the Shop & on the Scroll Saw with a safe attitude!
2. If you don't know how to use the Scroll Saw properly for the cuts you'd like to make, get instruction on how to use it correctly for what you want to do.
3. Before making any adjustments, performing maintenance, or changing the blade, turn off power, unplug the saw, and if the power switch has a key, remove the key.
4. Make sure the blade is the proper type for the cut you are planning.
5. Insert the blade with the teeth pointing forward and down to the table.
6. If the blade is held in place with a clamp rather than being a simple pin end blade, ensure the blade is properly inserted in the clamping jaws and tighten the clamp (usually with a small knob of some sort). If you have access to the user's manual, the instructions there should explain how to do this properly. Otherwise, if you need assistance, ask the Shop Foreman to help you find someone who can help you perform this operation correctly.

7. Maintain the proper blade tension. It's been said by some sources that a properly tensioned Scroll Saw blade will sound a high "C" note when plucked. Obviously, unless you have a perfect pitch or a known reference, this isn't real helpful to us. Suffice it to say that when plucked a properly tensioned Scroll Saw blade will not sound like a low musical note. If the tension is too loose, the blade will tend to wander. If it's too tight, you can actually break the blade. If you don't feel comfortable with all this, get help from someone who has experience in this area.
8. If the saw table on the Scroll Saw you're using can tilt, ensure that the table is set to the correct angle for the cuts you plan to make. Ensure that the saw table is locked securely.
9. Most modern Scroll Saws have some sort of air pump that blows a stream of air to help keep the cutline free of sawdust. Make sure this airstream is working and that it's aimed correctly.
10. Never start the machine before clearing the table of everything except your workpiece.
11. Never start the machine until all locking adjustments are securely locked.
12. Never reach under the table while the machine is running. The Scroll Saw has moving parts under the table that can injure you if you get caught in them.
13. Inspect your stock carefully before cutting it. Stock should be clean, free of dirt and other debris, and not have metal fasteners of any kind in the area that will be cut.
14. Support a large workpiece to reduce blade breaking and pinching.
15. Always use the hold down device by lowering and adjusting the hold down foot so that it presses lightly on the workpiece, for each new operation.
16. Always keep your hands and fingers 3 inches or more away from the blade.
17. Never place your hands or fingers directly in line with the blade where you could cut them if you slipped.
18. Do not start the machine with the blade in contact with the workpiece.
19. Hold the workpiece firmly against the table while the saw is running and after turning the saw off until the blade comes to a complete stop.

20. Most scroll saws are variable speed machines; use the proper speed for the job & type of stock you are cutting. While there doesn't seem to be a hard and fast rule here, if you are using extremely thin blades it's wise to run the saw slower and use a more gentle feed pressure.
21. Make relief cuts before cutting long or sharp curves.



The dashed lines show potential relief cuts.

22. STOP the saw and wait until all motion has stopped before moving small scrap & cut off pieces away from blade and off the table.
23. Do not cut a workpiece that does not have a flat bottom that can rest on the table.
24. Do not cut a workpiece that is too small to be safely supported and held securely.
25. If a blade binds in the kerf, turn the machine off. After it comes to a stop, back the blade out.
26. Use a "V" block to cut cylindrical stock.
27. When finished, release the blade tension to reduce stress on the blade.
28. Clean the saw table with a bench brush or vacuum so that it will be free of debris when the next person wants to use it.
29. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.