Radial Arm Saw Safety Rules

The Radial Arm Saw is a power tool used to make accurate crosscuts, miters or bevels. These saws can be adjusted to cut at various miter angles. The carriage the blade travels in can be adjusted to cut at various bevel angles. To avoid accidents, the following safety rules must be observed by everyone working on the Radial Arm Saw. Failure to follow these safety rules may result in serious 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. A four (4) foot perimeter around the Radial Arm Saw should be kept clear of sawdust and debris that could impair traction or footing to help ensure that you don't slip or fall. In the case of the Radial Arm Saw the infeed and outfeed tables are included in the area referred to here.
3. Keep bystanders at least four (4) feet from your work area as well.
4. Safety glasses with side shields, goggles, 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.
5. Hearing protection should be worn.
6. Remove all adjusting tools before starting the saw. Make it a habit to check for hex keys, wrenches, etc. before starting this or any tool.
7. Check for damaged parts and proper operation. Before using the radial arm saw, check for any damaged parts, including guards, 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.
8. Ensure that the saw is turned **OFF** before plugging it in.
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 radial arm saw with a safe attitude!
2. If you don't know how to use the Radial Arm 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. Concentrate on what you are doing and be aware of kickback. Stand in such a way that if the saw catches the stock and feeds rapidly toward you, you aren't caught off guard and knocked backward. This usually means standing to the side of the blade, turned somewhat to the side with your knees flexed slightly so that if the blade moves toward you, your entire body will be clear of its travel.
4. **Before performing any maintenance or adjusting the setup** on the radial arm saw, turn off power, unplug the saw, and if the power switch has a key, remove the key.
5. Never alter a guard or use the tool with a guard missing. Be sure all guards are in place and working properly before each use.
6. Never force a blade onto an arbor or alter the size of an arbor. If your blade does not have the proper size and shape arbor hole for the arbor, do not use it!
7. Before installing a blade, ensure that the arbor and blade are both clean. Buildup on the surface of the arbor and blade can

prevent the blade from seating correctly on the arbor and can result in the blade being out of alignment with the arbor which will make your cuts less accurate. Buildup on the blade will cause excessive friction.

8. Use sharp blades. Damaged or dull blades could throw teeth, causing serious injury.
9. Use the right blade style for the material and the type of cut. **Use blades specifically designed for use on radial arm saws**. These blades typically have a negative hook angle. The radial arm will be difficult to control if a blade with too much hook is installed in the saw. As the hook angle becomes more positive you'll notice that the blade will start to "climb" through the cut, sometimes feeding toward you at a nearly unmanageable *rate.*
10. When installing or changing a blade, match the direction of the arrow on the blade with the direction of the arrow on the tool casting to be sure of proper installation. The blade teeth at the bottom of the blade should point down and toward the fence.
11. If you find the blade isn't cutting properly once you start working with it, see the Shop Foreman for help in determining the cause.
12. Be sure the arbor nut is tight to prevent slipping or loosening of the blade.
13. Make sure that the saw is sitting level and securely on a flat, level surface.
14. On most Radial Arm Saws, the fence is a sacrificial piece of wood that can be adjusted to provide a zero clearance support for the stock being cut.
15. Always place the workpiece securely on the table & against the fence when making cuts.
16. Support long work pieces at the same height as the saw table.
17. Never make freehand cuts. Use the fence as a stable reference surface and avoid the loss of control and possible injury associated with freehand cutting.
18. Keep your hands and body clear of the zone that is defined by a 6" width either side of the blade and extending for the full travel of the saw carriage and blade assembly over the cutting range of the saw. Note that this area moves with the saw as the angle of the cut changes for miter cuts and that the zone expands in width as the blade is tilted to make bevel cuts.
19. Never reach under the saw blade or perform "cross handed" operation which will expose your hands or arms to the blade's path of travel.
20. Never cut small pieces that would require you to put fingers within 3" of the cutting blade. Use a clamping device to hold small pieces and to keep fingers 3" or more from the blade.
21. When you start the saw, allow the blade to reach full speed before cutting; do not force the blade and always start the cut gently.
22. **Maintain control of the saw** all the way through the cut and while returning the saw to the starting position. Move the saw slowly enough to give the blade time to cut the stock properly. Rushing will cause the blade to start to climb which can be dangerous.
23. **Be prepared for the saw's "desire" to climb toward you and maintain control!!!**
24. **NEVER try to remove stock or clamp the workpiece to the saw while the blade is rotating.**
25. **NEVER LEAVE A TOOL RUNNING UNATTENDED**. **TURN THE POWER OFF**. Do not leave the tool until it comes to a complete stop.
26. Do not use reclaimed lumber without first verifying that it is free of metal, paint, and other foreign material. See the CWA shop rules and guidelines for further detail on using reclaimed material.
27. Before starting the saw, make sure the blade is clear of the workpiece.
28. Always turn the power off to the saw when the cut is complete. **Allow the blade to stop before moving stock and cut off pieces**.
29. Always turn the saw off before unplugging the power cord. This helps avoid having the saw start when you plug the cord back in, which is something you're supposed to check, but should you forget, this practice can save someone from possible injury.
30. Never touch the blade or any other moving parts while the saw is running, for any reason.

Ripping Stock on the Radial Arm Saw

1. **Ripping on the Radial Arm Saw can be Very Dangerous**. Please consult with the Shop Foreman before using this machine to rip material.

2. While it's possible to rip material using the Radial Arm Saw, **there are other machines that will perform this operation more safely**. Either the Table Saw or the Band Saw would be better choices in most cases.