

NWA Learning Center

Safety Manual

This version published on April 5, 2023.

**In case of an emergency:
Dial 911**

Tell the dispatcher that you are at
Northeastern Woodworkers Association
97 Railroad Ave. (near Fuller Rd.)
Albany, NY, 12205

Printed copies or stored electronics copies of this manual are for reference only. The official copy of this document may be found in the Learning Center Library and on the NWA website at: www.woodworker.org

For Reference: This Safety Manual was first published in September 2013 and has been periodically revised as necessary to keep the information current and to follow best practices.

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1.0 Objective of This Safety Manual

The Northeastern Woodworkers Association (“NWA”) strives to make our members safer woodworkers through education, shared experiences, and adherence to safe practices. The purpose of this Manual is to document the Safety Policy of the NWA Learning Center and to define safety practices that govern woodworking activities at this facility.

2.0 Scope of Applicability

This Manual applies to woodworking activities in the Herm Finkbeiner Education Center (the “Learning Center” or “the shop”). It is shared with other groups within the NWA, including our Chapters and Special Interest Groups (“SIGs”), to foster safety in their woodworking activities as well.

3.0 Learning Center Safety Policy

It is our policy to place safety as our first priority. The Learning Center Operations Committee (the “LCOC”) has approved safety regulations and policies including this Manual.

4.0 Responsibility and Authority of the LCOC

It is the responsibility of the LCOC to implement Safety Practices and Regulations, maintain this Manual, and to implement policy established by the NWA Board of Directors (the “Board”). Further, it is the intent of the LCOC to communicate safety information throughout the organization and to work with the SIGs, Chapters, and leaders of NWA activities to enact safety programs in a practical and cooperative manner. The LCOC will keep the Board informed of safety related matters.

The LCOC will oversee the Machine Qualification Training programs.

5.0 Learning Center Operations Committee Members

Please feel free to contact any of the LCOC members with your safety questions, concerns or suggestions. A list of current members is posted in the Learning Center.

6.0 Policy of Continuous Improvement

No safety manual will ever be complete. We will strive to continually improve our safety practices and to document what we learn about safety by revising and enhancing this Manual. It is the responsibility of all NWA members to make suggestions to LCOC members so that these suggestions can be discussed, implemented, and documented. A Learning Center Operations Committee Member List is posted in the Learning Center.

7.0 Every Member's (Your Personal) Responsibility

You are responsible for your own safety, first and foremost. You must think through your intended actions beforehand and ask yourself: "Is what I am about to do safe?" If you are unsure or uncomfortable about an intended action or situation, don't do it. If you have a safety related question, then ask it before you proceed. If you see a situation or an action that is unsafe, you have an obligation to speak up and express your concern. Please read the next section of this Manual: "Consensus Safety Process".

You must read this Manual and if you do not understand something, ask. You agree to abide by the NWA's Safety Policy, Regulations and best practices and always work in a safe manner to the best of your ability. You agree to respect and abide by the decisions and directions of the NWA's leaders of woodworking sessions in which you participate.

Prior to participating in activities in the Learning Center, you must sign the Participation Agreement which provides, in part, an acknowledgement that you have been given a copy of this Manual and/or that you can access it on the NWA website: www.woodworker.org.

8.0 Consensus Safety Process

If you see a situation or an action that is unsafe, the NWA would like you to consider the following:

NWA experience in earlier occupied shops has taught us that everyone's level of expertise with safety is NOT equivalent and we have developed a means of employing the combined safety experience and judgment of everyone in the shop at any given time. This is how it works.

If YOU (this means ANYONE) see another NWA member doing anything that you think might be unsafe, NWA wants you to know YOU have the AUTHORITY and the RESPONSIBILITY to intervene.

First and foremost, stop the event. If there is still a question about the safety after discussing it with the members involved, bring the situation to the attention of everyone in the shop. The combined wisdom of those present will determine the relative safety of the action in question.

Obviously, there will be times where consensus will determine the action to be unsafe and there will also be times where consensus will find the action to be considered safe.

The outcome of this procedure, safe or unsafe, should not be considered a matter of right or wrong (nobody is counting), but rather an indication of one member's concern for the welfare of another. It is far better to be incorrect than to have someone get hurt while you pondered whether to stop and question the procedure.

No judgments should be made regarding the person who was stopped from doing something or the person doing the stopping. The ONLY judgment to be made is whether the action was or was not safe. The outcome sought is one where nobody was hurt and a safety lesson was learned by all present.

If there is not a consensus of everyone present whether the action is safe or not, the action should be aborted and another way found which is considered safe. The original event can be researched further and reported to the group at another time.

The NWA believes this "Consensus" process prevents accidents, and teaches safety.

9.0 Enforcement of Compliance with Safety Rules

This section last revised Sept. 2013

It is imperative that all members follow the safety practices defined in this Manual at all times. To this end, it is the responsibility of all members to report unsafe actions to the LCOC in a timely manner. The LCOC will review potential unsafe situations and when warranted take actions as defined below. The LCOC Chairperson is responsible for keeping records of disciplinary actions for a period of two years.

Unsafe or non-compliant situations that occurred during a session conducted by a SIG, or NWA committee will be brought to the attention of the leadership of that organization for corrective action.

Actions taken by the LCOC in regard to non-compliant members:

First offense: A verbal warning and counseling on relevant safe practices.

Second offense within a two-year period:
 A written warning and notification to the leadership of any involved SIG.

Third offense within a two-year period:
 A report of the matter will be made by the LCOC to the NWA Board
 with a recommendation for action.

10.0 Active Monitoring of Safety - Responsibility and Authority

This section last revised January 2023

The safety of the individuals using the Learning Center is of paramount importance to the NWA. With this in mind, the NWA LCOC has enacted this way of actively monitoring that safe practices are being employed during all sessions held in the Learning Center.

In accordance with Section 8.0 of this Safety Manual, every person in the Learning Center has the responsibility to be observant and to engage in our Consensus Safety Process.

There must be a designated Session Leader for each and every session taking place in the Learning Center. All participants in the session in progress must be aware of who that leader is and follow instructions given by the Session Leader.

In order for any machine of a type listed in this safety manual to be used, a Machine Qualified person must be present in the shop. Any machine that does not have a Machine Qualified person present in the shop is “off limits” and must not be used during that shop session.

The primary role of the Session Leader (with the assistance of all members present as part of our Consensus Safety Process) is to be aware of what is taking place and to take whatever steps are necessary to keep members out of harm’s way. This includes insuring that Machine Qualified Members are present and willing to oversee the use of machines by other members as a condition to permit those machines to be used.

The designated Session Leader may:

1. Find someone who can assist, mentor, or do a task such as running a certain machine for a member or performing a certain procedure for a member.
2. Designate a Machine Qualified person to oversee the use of woodworking machines by other members as defined in Section 11.
3. Designate a certain machine or machines as off limits for the session.
4. Grant or deny permission to a member to use a certain machine or tool.
5. Grant or deny permission to a member to perform a certain procedure.
6. Grant access or deny access to a certain area of the shop.
7. Direct a member to refrain from using the shop, but to become an observer for the session.
8. Direct a member to leave the Learning Center for the duration of the session.

In effect, the NWA bestows on the Session Leader the authority over the NWA members, and the operation of the Learning Center for the session’s duration.

The session leader shall report incidents that compromise the safety of the shop to the LCOC.

10.1 Activity-Specific Safety Monitors

This section last revised January 2023

Safety Monitors may be appointed for the limited role of performing the duties of a Session Leader for a particular activity of a SIG meeting, organized class, or other special activity. These Activity-specific Safety Monitors will fulfill the responsibilities and have the authority defined in Section 10.0 above. The purpose of Section 10.1 is to ensure safe practices during a session that may be hosted or lead by a non-NWA member or someone who is otherwise not qualified to fulfill the role of a Session Leader as defined above.

The Education Committee must designate a Safety Monitor for any class that will operate machinery or otherwise use tools or materials that may present a safety hazard. This Safety Monitor should be someone other than the instructor so that the instructor may concentrate on his presentation and the assistance of the students. An exception to this requirement is that there may be only one instructor in an MK class if only one machine at a time will be in use.

11.0 Authorization to Use Machines

This section revised January, 2023

There are three levels of member related authorization to use power equipment in the Learning Center:

1. Those who are not yet trained to safely use a particular piece of power equipment. These members are encouraged to participate in the use of woodworking machines only if directly supervised by a Machine Qualified (MQ) member.
2. A Machine Knowledgeable (MK) Member who can use a particular piece of power equipment, if a Machine Qualified (MQ) Member is present. See section 11.1.
3. A Machine Qualified (MQ) Member who can use a particular piece of power equipment unassisted. See section 11.2. Such members are listed and conspicuously posted in the Learning Center.

11.1 Machine Knowledgeable Level Safety and Operation Training

This section revised January 2023

Names of members who have successfully completed an MK Level Training Session for a particular machine are listed and conspicuously posted in the Learning Center. These MK members may use the machines they have been trained to safely use if an MQ member is present and aware of the MK member's intended activity.

11.2 Machine Qualified (MQ) Members

This section revised January 2023

Members who are sufficiently experienced in the safe operation of specific woodworking machines and who are familiar with the contents of this Safety Manual are listed as Machine Qualified (MQ) and conspicuously posted in the Learning Center. These members may use a particular piece of power equipment unassisted.

Members who believe they have the experience and knowledge to be certified as Machine Qualified (MQ) on specific machines should contact the LCOC to be evaluated for possible certification as MQ.

12.0 Restricted Use Tagging

This section last revised October, 2021

We use colored tags to alert members when not to use certain machines. These tags are diamond shaped wooden plaques that stand on the machine to prominently issue a warning.

A **red tag** indicates “**UNSAFE DO NOT USE**”. There is an unsafe condition that requires service.

Any member who determines that a machine is unsafe to use is encouraged to red tag it. Please follow the tagging procedure below. Please also alert the LCOC via email or text message of this condition. Corrective action by the person who discovers the unsafe condition is not required but corrective action if possible or a notification to someone who can correct the situation would be appreciated.



A MACHINE THAT IS RED TAGGED MAY NOT BE USED.

A **yellow tag** indicates that the machine is “**IN USE**”. Do not alter the setup of the machine. (Although a yellow tag does not indicate an unsafe condition, it is included on this page in this Manual merely because it is a logical place to communicate its meaning.)

Yellow tagging is reserved for situations in which a complex setup exists on a machine for an unfinished operation and the members conducting that operation will return to finish the job in a reasonable amount of time. Yellow tagging may not be used if the machine will be needed by a class before the job is completed. You must be granted permission from the Session Leader before you yellow tag a machine. If any of the requirements listed here are not followed, the Session Leader may elect to remove the yellow tag so that others may use the machine.



Tagging Procedure

1. Determine that it is appropriate to place a red or yellow tag on a machine. Refer to the conditions described above to make this determination.
2. Get the colored plaque (tag) and a correspondingly colored notification tag from their storage location near the battery charging station.
3. Fill out a red or yellow notice card. It is important that you include:
 - The date the machine was tagged
 - A description of the problem or situation
 - Your name and contact information (someone may have questions for you)
4. Place the notification card on the machine in a place where it will be visible. Place the notification card under the tag (so it will not be lost).

13.0 Workshop Safety Guidelines - Common and Not-So-Common Sense

This section last revised March 2023

- Protective eyewear must be worn in the shop at all times. Even if you are not operating a machine, you will walk by tools and machinery that are being operated by others.
- Hearing protection is recommended in the shop. Elevated noise levels will affect your hearing in the long run. Your brain adjusts to ambient noise and you may not realize how loud it really is.
- Never wear loose clothing or name tag lanyards when working on machines. If a rotating machine snags your clothes, you can get seriously injured. Loose hair should be tied back. It's strongly recommended to remove jewelry in the shop as well.
- Open-toed footwear is NOT allowed in the shop!
- Gloves shall not be worn when operating machines. They can snag on rotating machinery and result in injury. The one exception is that leather fingerless gloves are permitted for approved lathe operation. (See Section 15.0 Wood Lathe Safety.)
- Never work alone in the NWA shop. It is an unsafe practice and is a serious violation of LCOC rules. In addition, you should not work alone in the machine room.
- This Manual contains wisdom learned by others (sometimes the hard way). Read this Manual and consider what it says. Our life-long habits are not always the safest practices.
- Horseplay will not be tolerated in the shop. No one ever anticipates a resulting accident. Do not distract a machine operator.
- Be considerate of others. A good attitude is the foundation of a safe shop.
- Keep your hands clean. Greasy hands can lose their grip, and contaminants can ruin your work.
- Use the right tool for the job. A misused tool is an accident waiting to happen. Never use a tool that is not sharp or is known to be defective.
- Sharp tools should be carried with the cutting surface down and away from your body. When passing tools to others, present the blunt end or handle of the tool to the recipient.
- Secure your work firmly. A wobbly or loose clamp is worse than no clamp at all. (This is not only a safety rule, but properly clamping work will improve the accuracy of your cuts.)
- Turn off and unplug a machine before making adjustments or performing maintenance. Avoid guides, fences, and tool rests from inadvertently moving into the path of the fast-moving tools.
- Turn off machines when you walk away or turn your back; even for just a second. Accidents happen in a split second and you cannot predict the movements of other people in the shop.
- Do not leave trip hazards. Keep the walkways clear. Clean up spills immediately!
- Flammable materials MUST be stored in our Safety Cabinet for Flammables. Store finishing products and all liquids in proper metal or plastic containers with clearly written identification. Glass jars and bottles pose a breakage risk and may not be used.
- Ask for assistance when doing something new or if you are unsure. We are all here to learn and to help.
- If you see a member engaged in what you believe is an unsafe practice, intervene until the decision regarding safety is determined by discussion or research. Every member is empowered to intervene if they see an operation they think may be unsafe, and no member should take offense if asked about the safety of an operation.

14.0 Learning Center Specific Requirements

This section last revised March 2023

- The Learning Center must be kept clean, organized, and suitable for visitors to this facility at all times and to promote a safe working environment.
- The Learning Center is for organized NWA activities only. A qualified leader must be present during all activities and under no circumstances may anyone work in the facility alone.
- Aisle lanes must be kept clear.
- At the end of each session, the shop must be clean, trash collected in appropriate barrels, and the facility closed up and locked.
- Do not make holes in the walls, modify the building's structure, perform electrical wiring changes, or work on any building infrastructure without the permission of the LCOC.
- Irregular situations and safety incidents, and safety matters that may compromise the safety of the facility must be brought to the attention of the LCOC.
- All participants of the Learning Center are required to sign our "Participation Agreement" document before participating in activities in the Learning Center. This is mandatory. If you do not sign this document, you are not permitted to participate in activities in the Learning Center. A sample copy of this document may be found at the end of this Manual. See clipboard for use copies.
- All participants in SIG activities and classes held in the Learning Center are required to be members of the NWA. Visitors are permitted to visit and watch SIG operations one or two times prior to joining.
-

If an emergency occurs dial 911.

Don't take chances with anyone's health or well-being. If in doubt, call 911. Have someone wait by the door to direct the responders to the site of the emergency and to answer their questions.

If someone is injured, given medical assistance, or if 911 is call, it is required that a Learning Center Accident Report be filled out and left in the LCOC mailbox.

REFER TO "MEDICAL EMERGENCIES" POSTER AT VARIOUS LOCATIONS IN THE SHOP FOR INFORMATION. This information may also be found on the reverse side of the Accident Report form.

The address of the facility is:

**Northeastern Woodworkers Association
97 Railroad Avenue
Albany, NY 12205**

15.0 Wood Lathe Safety

This section last revised March 2023

- Never wear loose clothing and tie back long hair. Avoid jewelry that might catch on rotating parts or accessories.
- Use a full face shield whenever the lathe is turned on.
- Fasten stock securely between centers, on a faceplate, or in a chuck. Make sure that all locking devices on the tailstock, tool rest and base are locked before turning on the power.
- Adjust the tool rest as close to the stock as possible. Then revolve the stock by hand to make sure it clears the rest.
- Always stop the lathe before making any adjustments such as changing the position of the tool rest.
- Always check the speed setting before turning on the lathe. Run all stock at ~~the~~ a slowest speed until it is round and balanced. Use slower speeds for large diameter or rough pieces, and higher speeds for small diameter or balanced pieces. If the lathe is shaking or vibrating, lower the speed. There are charts to provide guidelines—refer to them.
- Be aware of what turners call the “red zone,” or “firing zone.” This is the area directly behind and in front of the work piece. These are the areas most likely for a piece to travel as it comes off the lathe at speed. A good safety habit is to step out of this zone when turning on the lathe. When observing others turn, stay out of this area.
- If the workpiece is vibrating, stop the lathe and determine why it is vibrating.
- Hold turning tools firmly in both hands. Always contact the tool rest with the tool before contacting the wood.
- Never leave the lathe running unattended. Turn the lathe off, and do not leave the lathe until it comes to a complete stop.
- DO NOT use drywall screws or similar fasteners for faceplate mounting.
- Remove the tool rest when sanding or polishing. Avoid serious pinch-point injuries.
- Wood of poor quality as with knots and splits should not be turned. Glued-up stock should cure the proper amount of time – at least 24 hours.
- Remove both the spur and live centers when they are not in use.
- Keep the lathe tools sharp.

- **Wood Lathe Safety (continued)**
- Know and follow the rules for each of the basic lathe tools. Know these rules before using a tool.
- Know which turning tool is for what specific cuts and follow these rules.
- If you are not sure of some situation or process, ask someone who knows before proceeding.
- Gloves that pose a potential of catching on the spinning workpiece, such as those made from woven material and those with fingers, shall not be used when turning. With the approval of the supervising Machine Qualified turner, a leather glove with the fingers removed, may be worn to prevent injury from flying material.
- Take a woodturning class! Woodturning should NOT be attempted without formal training!

16.0 Jointer Safety

This section last revised June, 2019

- Before turning on the machine, make adjustments for depth of cut on the in-feed table and position of fence.
- Do not adjust out-feed tables or remove the guard.
- The maximum cut is 1/8 inch for jointing an edge and 1/16 inch for a flat surface.
- Stock must be at least 1/2 inch thick.
- Feed the work so the knives will cut with the grain. Use only new stock that is free of knots, splits, checks and foreign objects.
- Keep your hands away from the cutter-head even though the guard is in position. Maintain at least a 4-inch margin of safety!
- A push block may be used when jointing a flat surface but do not use down pressure on the in-feed table. (Only apply down pressure on the out-feed table. This prevents tapered cuts.)
- Do not attempt to joint a board that is less than 12 inches long.

LCOC Shop Rule: Do not joint end grain.

- The jointer knives must be sharp. Dull knives will vibrate the stock and may cause a kickback. If you suspect the knives are dull or not properly adjusted, turn off the machine and consult a Machine Qualified member or the session leader.
- The machine should be “Red Tagged” if not safe for use. Refer to the Safety Tagging page of this Manual.

17.0 Planer Safety

This section last revised June, 2019

- Adjust the machine to the initial thickness of cut before turning on the power.
- Stock should be at least 12 inches long, or several inches longer than the distance between the centers of the feed rolls. In the Learning Center, the minimum stock length is 12 inches on the 13 inch wide Dewalt Planer, and 15 inches long on the 15 inch wide Powermatic Planer.
- Surface only new lumber that is free of loose knots and serious defects as well as foreign objects.
- Plane with the grain, or at a slight angle to the grain. Never attempt to plane cross grain.
- Stand to one side of the work being fed through the machine.
- Do not look into the throat of the planer while it is running.
- Do not feed stock of different thicknesses side by side through the machine.
- Handle and hold the stock only in an area beyond the ends of the table.
- If the machine is not working properly, shut off the power at once and inform the session leader or a Machine Qualified member. The machine should be “Red Tagged” if not safe for use. Refer to the Safety Tagging page of this Manual.

18.0 Table Saw Safety

This section last revised March 2023

Material – Control & suitable materials

- **Never cut free-hand.** Always use a fence, crosscut sled, miter gauge or appropriate jig to support the material.
- Suitable materials are dried lumber, boards, or plywood that are reasonably flat (minimal cup, twist, or bow) and have at least one trued (jointed or straight) edge. The trued edge should be against the fence, miter gauge, or jig fence for support.
- Do not force material through the blade.
- Support long wood pieces that extend beyond the table. If an assistant is helping to support the wood, they should not push or pull on the wood but only support it; they should verify they know their role.
- Do not attempt to saw small pieces of wood that cannot be safely guided and controlled by the miter gauge, rip fence, jig and/or a push stick.

Machine – Set-up & control

- Always use the riving knife or blade guard/splitter unit. Use of the blade guard is recommended when it doesn't interfere with feeding the stock past the blade.
- For through cuts, set the height of the blade teeth to no more than about 1/4" above the stock.
- Do not use the miter gauge and rip fence together in a way that traps cutoffs between the blade and the rip fence.
- Turn off the power at the Master Switch on the wall (see Section 18.1) as well as at the saw switch box before making adjustments that involve touching or coming within 3 inches of the blade.
- Do not leave the machine running when not attended.
- Be certain the blade is sharp and the right one for your work.
- **LCOC Shop Rule: Do not re-saw on the table saw.**

Table Saw Safety (continued)

Operator – Preparation and actions

- Always wear eye and earing protection.
- **Keep hands at least 3 inches away from the saw blade any time the power is on;** use push sticks that apply downward pressure, or jigs and clamps to keep hands away from the blade.
- Position your body so it is not in line with the blade (that is, stand outside the kickback zone) and do not allow other people to stand directly in line with the blade.
- Do not reach over the blade.
- Never place your hand in line with or above the blade, even if the blade is not protruding through the top face of the workpiece.
- Make sure the blade has come to a complete stop before removing scrap pieces near the blade or making adjustments to the settings.
- Know where the shutoff paddle is located and that you can reach it at all times.

Work area and shutdown

- Keep the saw cutting area and floor free of tools, cutoffs, scraps, and accumulated sawdust.
- Turn on the dust collector when sawing; be sure the blast gate is open and there is air flow.
- When you complete your work, turn off the power at both the Master Switch on the wall and the saw switch box. Replace the normal blade and blade guard/splitter unit (if necessary); return the blade to zero tilt and fully down position. Turn off the dust collector and close blast gates. Clear the saw and area of debris and dispose of debris in proper containers.

Finally, if you are not comfortable with making a cut, don't do it. Consult a Machine Qualified member to be sure you are using proper precautions and technique.

18.1 SawStop Table Saw Special Information

This section last revised March 2023

The NWA Learning Center uses SawStop Table Saws that are equipped with an electronic detection system and a fast-acting brake. Section 18.0 covers useful safety procedures for all table saws, including those in members' own shops. This section covers additional information specific to the NWA SawStop table saws.

- The extra protection provided by the electronic detection system and fast acting blade brake should not be counted on to relieve the need to follow all of the safety practices described in Section 18 above and in other parts of this Safety Manual.
- There is a power Master Switch for the Table Saws on the wall in the machine room. This power shut off is in addition to the power switch provided on the Table Saws. Both power switches must be turned off when changing the blade braking cartridge, changing the blade, adjusting the machine or performing maintenance.
- The power Master Switch is equipped with an indicator light. Green indicates that power is supplied to the saw and that the saw may be turned on. When the light is not illuminated, power is off to the saw.
- Do not use wobble-style dado blades, molding cutters, or any single blade smaller than a 10-inch diameter. These blades are not compatible with the SawStop braking cartridges.
- Do not cut conductive material (i.e. aluminum, pressure treated lumber or freshly glued or wet wood). Conductive materials will trip the braking cartridge, shut down the table saw, and possibly damage the blade.
- When using a 10" single saw blade, install the single blade brake cartridge.
- When using the stackable dado blades, install the dado blade cartridge.
- When changing the blade, the gap between the blade and the cartridge must be checked and/or adjusted. If you don't know how to do this, have a qualified member teach you the procedure before attempting to change blades.

19.0 Drill Press Safety

This section last revised March 2023

- Respect the drill press as a powerful and potentially dangerous rotating machine.
- Maintain a two-foot perimeter clear of people, debris and saw dust.
- Always wear protective eyewear. Chips tend to fly off fast spinning tools.
- Never wear loose fitting clothes and absolutely no gloves, which can catch and cause serious injury.
- Turn off the power before making ANY adjustments except changing speed.
- Never walk away and leave the drill press (or any other machine) turned on.
- Guards must be on at all times, especially covering pulleys and belts.
- Select the correct speed before you insert the bit. Holes larger than one half (1/2) inch should be drilled at the lowest speed. Consult a speed chart.
- Center punch the location to be drilled to prevent the drill from wandering. (Note: This is still a good practice when using piloted drills such as brad points and forstner bits.)
- **LCOC Shop Rule:** Bring the entire drill index to the drill press or hand drill work site. This rule is a working best practice that saves you steps and helps keep our drill indexes full.
- Tighten the chuck fully. If the chuck requires a key, return the chuck key to its holder immediately to prevent it from interfering with the work, being inadvertently left in the chuck and potentially becoming a projectile, and so it will be readily found when needed to remove the drill.
- Clamp the work piece to the table. Avoid work-piece jump.
- Always have a clamp or stop block serve as an anti-rotate stop. Drill bit torque can cause the work piece to break loose and spin creating a dangerous flying object.
- Position the long end of the work piece to the left. If it spins, it will hit the post – not you.
- Use a backer board. You will get cleaner holes. The drill press table is not a sacrificial surface.
- When drilling a deep hole, retract the bit periodically to clear the chip. Stop and wait if the drill bit gets hot.
- If the drill binds, shut off the drill press. Manually, rotate the drill backwards to retract it.

Drill Press Safety (continued)

- Never grab a work-piece that you have lost control of.
- Never reach around or behind a rotating drill bit (or any tool for that matter).
- Never put your hand underneath the piece being drilled. You may end up with a hole in your hand.
- Never stop the spindle with your hand or attempt to clear debris from a rotating tool.
- Do not touch the drill bit. It may be hot.
- Do not place the drill against the work before powering up the drill press. The drill could bite into the work and immediately jam.
- Clean the workspace constantly. The quality of your work and safety will improve if you do.
- When drilling large holes with twist drills, drill a small hole first. Then drill successively larger holes.
- **LCOC Shop Rule:** When drilling holes larger than one inch, a second, qualified, experienced member should check your set up before turning on the drill press, and must be in attendance during the drilling. A secure hold-down and anti-rotate stop block is mandatory for drilling holes larger than one inch.
- When drilling round stock, use a V-shaped drill block to support and hold the material.
- Do not perform routing or shaping operations on a drill press. We have better and safer tools for these jobs. Drill presses are not designed to absorb side loads on the quill (rotating shaft).

20.0 Sanding Machine Safety

This section last revised June, 2019

- **Belt, disk and drum sanders can cause serious skin burns with incorrect use. Operators must be trained in the safe handling of this piece of equipment.**
- Always use protective eyewear.
- Never wear loose clothing when sanding. Serious injury may result when your clothing gets pulled in.
- Keep the work area free of debris.
- Always turn on the dust collection when sanding. Protect your health and the health of others.
- Check that the sand paper is free from rips and is positioned properly and securely fastened before applying power. Belt sander belts must track in the center of the drums and platen.
- Check the guards and table adjustments to see that they are in the correct position and locked securely in place.
- Use the table, fence, and other guides to control the position of the work, whenever possible.
- Small or irregular-shaped pieces should be held in a hand clamp, or a special jig or fixture.
- When sanding the end grain of narrow pieces on the belt sander, always support the work against the table.
- Sand only on the side of the disc sander that is moving toward the table. Move work along this surface so it will not burn.
- Always use a pad or push block when sanding thin pieces on the belt sander.
- Use jigs or fixtures to hold the work piece whenever possible.
- Do not use power sanders to form and shape parts when the operations could be better performed on other machines or by hand.
- Sand only clean new wood. Do not sand work that has excess glue or finish on the surface. These materials will load and foul the abrasive.
- Use a brush to clean away debris from the sanding machines. Do not use your hands.

Sanding Machine Safety (continued)

- Ensure that the machine has come to a complete stop before leaving the machine. As with all power equipment, do not leave the machine running. Turn off the machine if you need to step away for a moment.
- Make sure that the sanding belt travels in the correct direction. Arrows on the back of the belt indicate the direction of travel that prevents your work from catching the belt's joint.
- Clean the work area when you are finished.
- Make sure the workpiece does not have any protruding nails, staples, screws, etc. This can damage the sanding belts or discs or sparks may start a fire.
- Don't overreach. Keep proper footing and balance at all times.
- Always be aware of where your fingers are in relation to the sander disc.
- If the machine is not working properly, shut off the power at once and notify the session leader.
-
- Do not remove jammed wood while sander is on. Turn off power, and wait until machine has stopped.
- Always keep hands/fingers clear of abrasive disc while sanding.
- Do not adjust tables while machine is turned on.
- Ensure adequate housekeeping measures to prevent accidents.
- Check for damaged parts on machine. Before using the machine check to see that all parts are in working order. Damaged parts should be repaired or replaced before using the machine.
- Disconnect the power before servicing or changing accessories.

21.0 Band Saw Safety

This section last revised March 2023

- Follow the directions and safety guidelines as listed by the machine's manufacturer.
- Always keep all guards in place. Adjust the blade guards to within 1/8" to 1/4" of the stock. *Blade guards more than 1/4 inch above the work invites accidents and reduces cut accuracy.*
- Maintain the stock flat on the table. Never hold the stock 'above' the table; the material must remain flat on the table at all times. An irregular board or turning blank that wobbles can result in breakage of the blade.
- Only Machine Qualified members, using a miter gauge or fixture, may cut individual round stock on the band saw.
- Concentrate your attention on the job. *Stay focused until the blade has stopped moving.*
- Do not interrupt others while using power equipment.
- Never leave the machine operating while unattended.
- Keep the work area clean. Scrap wood or tools on the floor or the band saw table will lead to accidents and injuries.
- If the blade comes out of the guides or breaks, stop the saw immediately. Turn off the power.
- Do not open the access door to the machine until the wheels have come to a complete stop.
- Have a qualified member reposition or install a new blade.
- Do not reach across the saw line.
- Never back material out of a cut until power has been turned off and the blade has stopped.
- Always use a push stick when sawing small stock.
- Do not hold the stock in line with the saw blade. Hold the stock to the sides of the cutting line.
- Keep your hands and fingers several inches from the side of the blade.
- *Remember to keep your hands clear of the table insert.*
- Use 'relief cuts' on tight curves to avoid breaking the blade.

22.0 Scroll Saw Safety

This section last revised June, 2019

- Know and understand the saw you are using; a scroll saw can cause injuries.
- Work in a well-lighted area or use magnifying light.
- Sit or stand in a comfortable position. Relax your shoulders.
- Make all setups and adjustments with the power off.
- Always use protective eyewear. (This is mandatory for all shop operations.)
- Wearing a dust mask is recommended.
- Use the correct blade for the stock (thickness) and curvature being cut. (The NWA Scrollers Guild sets Blade selection guidelines.)
- Check the direction of blade and insert it with the teeth pointing down.
- Tension the blade correctly; turn tension until just snug. Adjust the guides so they properly support the blade.
- Do NOT over tighten the setscrews that hold the blade in place at the top and bottom. This will break the mechanism that holds the blade in place and cause blade breakage.
- Adjust the cutting speed to your skill level, wood species and/or the project design.
- Know where the on/off switch is or how to use the foot control pedal.
- Use a "hold-down" if necessary to keep your work piece from jumping. Always keep both hands on your work piece to keep constant pressure on the piece.
- Keep your fingers away from the blade and out of line with the saw blade.
- Let the blade do the cutting. Don't force the wood.
- Plan your cuts to avoid having to back out of curves.
- If the blade breaks, immediately stop the machine, and then carefully remove and replace it.

23.0 Miter Saw Safety

This section last revised December, 2021

- Always wear eye protection.
- Hearing protection is recommended.
- Keep hands at least three inches from the blade when cutting.
- Do not allow hands or arms to cross under or across the blade when cutting.
- Be sure wood is firmly supported against the fence and the saw table. Wood with a severely bowed surface against either the fence or the saw table may not be cut with a miter saw.
Note: Please consider hand planing or jointing the bowed surface before miter cutting.
- Wood longer than the saw table should be supported by arm extensions or other supporting devices.
- Turn on the dust collector; be sure the blast gate is open and that there is air flow.
- Depress the trigger, **wait until the machine reaches full speed**, and then push down on the saw to make the cut.
- Release the trigger and **be sure the blade has stopped before lifting the saw** from the cut.
- **Always keep a firm grip on the operating handle until the trigger is released and blade stops.**

24.0 Sliding Miter Saw Safety

This section last revised December, 2021

- Always wear eye protection.
- Hearing protection is recommended.
- Keep hands at least three inches from the blade when cutting.
- Do not allow hands or arms to cross under or across the blade when cutting.
- Be sure wood is firmly supported against the fence and the saw table. Wood with a severely bowed surface against either the fence or the saw table may not be cut with a sliding miter saw. Note: Please consider hand planning or jointing the bowed surface before miter cutting.
- Wood longer than the saw table should be supported by arm extensions or other supporting devices.
- Turn on the dust collector; be sure the blast gate is open and that air is flowing.
- **TO SLIDE CUT:** Pull the saw out to its full extension or to the front edge of the board. Depress the trigger, **wait until the machine reaches full speed**, and then push down on the saw and then push the saw toward the fence until the cut is completed. NEVER make a cut by pulling the saw toward you as the blade can climb on top of the workpiece and come toward you.
- **FOR NON-SLIDING CUT (miter cut/ cross cut):** Securely tighten the slide lock knob. Raise saw arm to its full height. Depress the trigger, **wait until the machine reaches full speed**, and then slowly lower the blade into and through the workpiece. After completing the cut, release the trigger and **be sure the blade has stopped before lifting the saw** from the cut.
- **Always keep a firm grip on the operating handle until the trigger is released and blade stops.**

25.0 Router Table Safety

This section added December, 2021

- Wear eye and hearing protection.
- Avoid loose fitting clothing; remove jewelry and tie back long hair.
- Before starting to work, make sure the dust collector is attached and working; turn on the dust collector when making cuts.
- Be certain the router is unplugged when installing or removing a bit, or when making adjustments to the bit or fence position.
- Use only clean, sharp and undamaged bits. Use 1/2" diameter shank bits whenever possible.
- To install or remove a bit, use the lift crank to raise the router, and install/remove the bit from above the table.
- Know how to properly install a bit; do not allow the bit to bottom out in the collet, and do not push the bit into the collet past the straight shank part of the bit. Install a plate insert that is the appropriate size for the bit.
- Limit the depth of cut per cutting pass. As a general guideline, the depth of cut per pass should be no greater than 1/4" for bits greater than 1/4" diameter, and no greater than the bit diameter for bits less than 1/4" diameter. Use multiple passes as necessary to achieve the final depth.
- Select the appropriate router speed (rpm) for the bit. As a guideline, use 21,000 rpm for bits less than 1" diameter; reduce the speed to 16,000 rpm for bits greater than 1" diameter.

Note: On the router table in the Learning Center, the speed control is a slider switch with detents. The switch is located on the front side of the motor and may be accessed by opening the cabinet.

- When using the fence, adjust the fence to align with the bit edge or bearing; a micro-adjustment jig is available for making fine adjustments. Adjust the wings of the fence from side to side so they're tight to, but not touching, the bit.
- Before starting the router, clear the table of anything other than the work piece and necessary guides or jigs.
- Feed the work piece against the direction of cutting blade rotation. Otherwise, the cutter blade can grab and pull the work piece out of control. For the most common operations, this means the work piece should be fed from right to left in front of the bit. Do not feed the work piece in between the bit and the fence.

Router Table Safety (continued)

- Keep your hands at least 3” away from the cutting area. Use holding jigs for small pieces or push blocks to keep your hands at a safe distance.
- Use feather boards to keep narrow pieces against the fence and the table, and as otherwise needed to control your work piece.
- When using a bearing bit without the fence, keep your hands and fingers on top of the work piece and at least 3” away from the cutting area. Avoid the temptation to hang your fingers over the edge of the work piece to push it along. Use push blocks if needed.
- Never force a cut. Hit the safety power shutoff switch if the work piece catches or overloads the router, and make necessary adjustments before restarting.
- Seek help with a heavy, long or awkward work piece.
- Never leave the router running when not attended.
- If you are unsure of or uncomfortable with a setup or cut, don’t do it. Seek help from a more experienced member.
- When work is complete, turn off the router and dust collector. Unplug the router. Remove the bit (CAUTION: It may be hot!) and return bit and tools to their proper places. Clean chips and dust from the table, the router enclosure, and surrounding area.

26.0 Electrical Power Safety

This section last revised Sept. 2013

- **Never plug in a machine that has been red tagged for safety reasons unless you are working on corrective action for that machine.**
- Do not remove ground pins from power plugs. If a ground pin comes off a power plug, red tag the machine until it is replaced. (If a ground is provided it is presumed necessary for safety.)
- If you see or smell arcing (sparks), smoke, burn marks or other signs of electrical hazard, immediately shut off machine and notify the session leader.
- Do not overload branch circuits by using cue taps to plug in multiple devices. (Cube taps may only be used with permission of a Safety Monitor and then only after consideration of the total load on that branch circuit.)
- **Never place ANYTHING on power transformers or electrical switch gear. This is a serious fire hazard.**
- Extension and power cord safety:
 - The use of extension cords should be minimized. Find a closer outlet or move the tool.
 - Do not string extension cords across floor. Avoid tripping hazards.
 - Power cords may not be suspended across aisles at an elevation below seven feet.
 - Do not hang things from power cords; they are not weight bearing supports. This is unsafe.
- Do not make wiring changes or electrical repairs to machines unless authorized by the LCOC.
- Wiring boxes and machine power wiring may only be worked on with the power disconnected.

Participation Agreement



NORTHEASTERN WOODWORKERS ASSOCIATION

P.O. Box 246, Rexford, New York 12148-0094

Voice 518-371-9145 • FAX 373-1449 • e-mail NEWoodwork@aol.com • web www.woodworker.org

Participation Agreement Herm Finkbeiner Learning Center

I, _____, am participating in activities at the
[print your name]

Herm Finkbeiner Learning Center sponsored by the Northeastern Woodworkers Association (NWA). As a condition of participating, I agree to the following:

- I agree to abide by the rules and safety guidelines established by the NWA, its standing committees, and any Special Interest Groups (SIGs) that I participate in.
- I acknowledge that woodworking tools and machines can cause injury or even death, even if used in a prudent or careful manner. I agree to take responsibility for my own actions and participate in activities at the Learning Center at my own risk.
- I will hold the NWA and its Officers, Board Members and Committee Chairpersons, Erie Materials, Inc. (the building owner), and event sponsors harmless for liability for personal injury to myself and damage to my personal property.
- This Participation Agreement is binding upon me, and my heirs, successors and assigns.
- I will work safely. I will stop and ask questions if I am unsure of the safe way to work.
- If I see something that is potentially unsafe, I will correct the situation if I can, otherwise I will bring the situation to a responsible or knowledgeable person's attention.
- To the best of my ability, I will help others to be safe and contribute my knowledge and skills to the success of the programs I participate in and enrich the experience of other participants.
- I acknowledge that I have been given a copy of the NWA Learning Center Safety Manual and/or that I can access it on the NWA website: www.woodworker.org

This Participation Agreement will remain in effect from the date I have signed this document until revoked by me in writing.

[Participant or Parent/Legal Guardian's Signature]

[Date]

If the participant is a minor, print the parent or legal guardian's name: _____

If the participant is a minor, please state his/her age: ____ Years Old

Quick Reference of Important Information

Posters elaborating on these safety notices are posted in the Learning Center. Please remember what they say.

NOTICE

This shop is for organized NWA activities only.

FOR YOUR SAFETY:

A qualified leader must be in attendance.

Working alone in this shop is STRICTLY PROHIBITED.

In case of an emergency:

Dial 911

Tell the operator you are at
Northeastern Woodworkers Association
97 Railroad Ave
Albany, NY 12205