

## Woodturning safety is YOUR responsibility

Safe, effective use of a wood lathe requires study and knowledge of procedures for using this tool. Read, thoroughly understand, and follow the label warnings on the lathe and in the owner-operator's manual. Safety guidelines from an experienced instructor, video, or book are good sources of important safety procedures. Please work safely.

### ENVIRONMENT

- Don't use a lathe in damp or wet locations or in the presence of flammable liquids, vapors, or gases. Always keep a fully-charged fire extinguisher close at hand.
- Guard against electric shock. Inspect electric cords for damage. Avoid using extension cords.
- Frequently remove shavings from the floor while turning. Eliminate all slipping or tripping hazards from the floor around the lathe and work area.
- Keep your work area well lit and well ventilated. Use anti-fatigue floor matting at the lathe workstation.
- Use a powered dust-extraction system to remove wood dust and other air-suspended particles while sanding or generating any form of dust.
- Do not be distracted. Keep pets out of the shop. Ask family members to enter the shop carefully if the lathe is running, so you aren't startled, and to wait until you turn off the lathe before trying to get your attention.



### EQUIPMENT

- Keep lathe in good repair. Check for damaged parts, misalignment, binding of moving parts, and other conditions that may negatively affect its operation.
- Ensure that all guards, belt covers, and other safety features are in place.
- Keep the lathe bed, toolrest holder (banjo), and tailstock mating surfaces clean and operating smoothly. Remove rust or debris that would cause binding.
- Keep turning tools sharp and clean for better and safer performance. Inspect frequently for cracks or defects. Don't force a dull tool. Never use a tool for a purpose for which it was not designed or intended.



## **PERSONAL PROTECTION EQUIPMENT**

- Using a full face shield is recommended for all woodturning operations, but especially for bowl, vessel, or any medium to large turned pieces involving chucks and faceplates. At a minimum, use safety goggles or safety glasses that have side protectors when turning small items.
- Fine particles from a grinder and wood dust are harmful to your respiratory system. Use a dust mask, filtering respirator, or a powered air filtration respirator (PAFR), in conjunction with a dust-collection system and proper ventilation. Be especially mindful of dust from many exotic woods, spalted woods, or any wood that might give you a skin or respiratory reaction.
- Wear hearing protection during extended periods of turning, grinding, or power carving.

## **BLANKS & TURNING MATERIALS**

- Turning stock should be physically sound and carefully inspected for cracks, splits, checking, ring shake, and other defects that compromise the integrity of the wood. Always be aware that defects may be present but undetectable through visual inspection.
- Exercise extra caution when using stock with any known defects, bark inclusions, knots, irregular shapes, or protuberances. Beginners should avoid these types of stock until they have greater knowledge of working such wood.
- Frequently stop the lathe and inspect the blank to determine if defects are

being developed or exposed as material is removed. Discard blanks that have significant defects. Adding adhesives to attempt to “fix” defects in the blank is not advised. Do not rely on glue to keep a defective blank together.

## **TECHNIQUE**

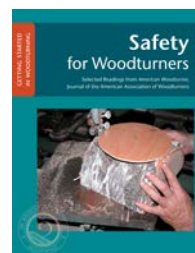
- Tie back long hair, bangs, and beards. Do not wear gloves. Avoid loose clothing, jewelry, or any dangling objects that may catch on rotating parts or accessories.
- When using a faceplate, be certain the workpiece is solidly mounted with stout screws (#10 or #12 sheet metal screws as a minimum). Do not use drywall or deck screws. When turning between centers, be certain the workpiece is mounted firmly between the headstock drive center and tailstock center.
- Before starting the lathe, rotate your workpiece completely by hand to make sure it clears the toolrest, banjo, and lathe bed. Be certain that the workpiece turns freely. Ensure the blank is held securely by the drive center, faceplate, or chuck.
- Always check the speed of the lathe before turning it on. Use slower speeds for larger diameters or rough pieces and higher speeds for smaller diameters and pieces that are balanced. Always start a piece at a slower speed until the workpiece is balanced. If the lathe is shaking or vibrating, lower the speed. If the workpiece vibrates, always stop the machine to verify why. Ensure the lathe speed is compatible with the size of the blank.

- Be aware of what turners call the “red zone” or “firing zone.” This is the area directly behind and in front of the workpiece, the areas most likely for a piece to travel into as it comes off the lathe. A good safety habit is to step out of this zone when turning on the lathe, keeping your hand on the switch in case you need to turn the machine off. When observing someone else turn, stay out of this zone.
- Hold turning tools securely on the toolrest, holding the tool in a controlled but comfortable manner. Always contact the toolrest with the tool first before contacting the wood.
- Turn the lathe off before adjusting the toolrest or repositioning the banjo. Following these adjustments, again rotate the piece by hand to confirm that all parts of the piece will not encounter an obstruction.
- Always remove the toolrest before sanding, finishing, or polishing operations.
- Do not use cloth to apply finishing or polishing materials if you intend to contact a rotating object on the lathe. Never wrap polishing materials around fingers or hands.
- When a lathe is running in reverse, it is possible for a chuck or faceplate to unscrew if it is not securely tightened or locked on the lathe spindle. Use spindle-locking screws in the faceplate or chuck if turning in reverse.

## ROUTINE

- Check that all locking devices on the tailstock and toolrest assembly (rest and base) are tight before operating the lathe. Frequently check the tightness of chuck jaws throughout the woodturning session.
- Remove chuck keys, adjusting wrenches, and knockout bars. Form a habit of checking for these before turning on the lathe.
- Know your capabilities and limitations. An experienced woodturner is capable of using lathe speeds, techniques, and procedures not recommended for beginning turners.
- Don’t overreach, keep proper footing, and keep your balance at all times.
- Never leave the lathe running unattended. Don’t leave lathe until it comes to a complete stop.
- Stay alert and watch what you are doing. Pay close attention to unusual sounds or vibrations. Stop the lathe to investigate the cause. Don’t operate machines when you are tired or under the influence of drugs or alcohol.

~ Rob Wallace  
Ames, Iowa  
AAW Safety Committee Chair



**Members:** [Click here to download a free digital copy of AAW’s 66-page Safety for Woodturners book.](#)