

# Lathe

User: \_\_\_\_\_

Instructor: \_\_\_\_\_

Date: \_\_\_\_\_

Pass: \_\_\_\_\_ Sent for more training: \_\_\_\_\_

## Knowledge Check

### User can find and point out the following tool features

- On/off switch                       speed control                       headstock
- Tailstock                               Tool rest

### Personal Protective Equipment

- Demonstrates knowledge of what protection should be worn

A: Face shield

- Should gloves be worn?

A: Better not to, although some users do to protect the hands from flying chips which can get painful on long jobs. We should discourage gloves but not forbid them for experienced users.

### Safe Operation

User:

- Demonstrates loading wood on the spur drive

A: Should whack the spur into the wood at the end to go on the headstock using a hammer. Should place the live center in the other end, and move the tailstock up to press the wood correctly between. Must fasten the tailstock in two places, both the sliding tailstock lock on the bed and the spindle lock keeping the handwheel from loosening. OK to do this in two stages, first slide the tailstock into place and tighten it, then turn the handwheel to compress the wood a little more and then lock the spindle.

- Knows how to adjust the tool rest appropriately for the workpiece

A: Make sure they rotate the workpiece by hand once or twice once it's loaded, to ensure it doesn't hit the tool rest. Toolrest should otherwise be quite close to the workpiece,  $\frac{1}{4}$ " or  $\frac{1}{2}$ " at the closest point. Toolrest should be set to the height of just under the axis of rotation of the lathe.

- Knows how to address the workpiece with a cutting tool

A: Holds the tool by the handle in the right hand, firmly. Places the tip of the tool on the toolrest and holds it down with the left hand, with left fingers entirely behind the toolrest edge. Lowers the tool handle to raise the

Ace Monster Toys - May 2017

Tool operators are responsible for their own safety, including reading and understanding the owners manual for this equipment and all of the warnings it contains. This document is an internal Ace Monster Toys training document and is provided "as is", to be used as a reference only. Use of this document for any purposes other than as reference material (i.e., for the purposes of training and testing users on tools or equipment by other commercial entities or individuals) is not advised. In no event shall the authors of this material, or Ace Monster Toys be liable for any claim, damages, or other liability whether in action or contract, arising from, out of, or in connection with the use of the information in this document for training, testing, or on-going safe use of equipment.

tip, and moves the tool gently onto the workpiece, letting the bevel rub before slowly raising the handle to lower the tip and make a cut.

Knows how to sharpen the chisels and how to tell when they need sharpening

A: [not sure where the grinder is at AMT currently, a recent workshop user should fill this in] Tilt the tool up towards the edge of the grinding wheel so the wheel turns from the sharp edge towards the middle of the tool, not towards the sharp edge. Be careful to retain the existing bevel. Don't burn the metal, keep it moving on the grinding wheel. Frequent small sharpening is better for the tool and better for the project.

Understands the basics of speed control

A: The larger diameter the wood on the lathe, the slower the RPM. The outside of the wood travels faster than the inside of the wood as it has farther to go.

### **Allowable Materials**

Can state 3 requirements of the wood that is used on the latheA: 1. Wood only - advanced users can use wood impregnated with resin. 2. No metal in the wood. 3. No super cracked or soft or decaying or extremely irregularly shaped wood, it can break while spinning and fly off and hit someone

## **Default Configuration**

Lathe should be left with the spur drive in the headstock and the live center in the tailstock. Speed control should be set to 0 and power switch to OFF. Instructor shows

- Locations of cutters and accessories
- Location of grinder