

**NOVEMBER 2017 DEMONSTRATION
TURNING A LAMP BASE WITH GREG POTTER**

The Central New York Woodturners held their monthly meeting on November 14th with a demonstration on turning lamp bases by **Greg Potter**.

Greg demonstrated how to design and make a lamp base on a lathe, how to select a lamp shade, and how install the wiring. It was a complete presentation of making a lamp that was fully functional by the end of the demonstration – including many practical tips and humorous what-not-to-do examples.

Greg started by listing all the materials needed:

- ◆ Purchase a lamp kit with all the hardware and electrical components (suggested sources included Lowes, Home Depot, Ace Hardware, and www.txlampparts.com).
- ◆ Purchase a lamp shade at a store where you can see colors shapes, sizes (suggested sources included Lowes, Home Store, Ace Hardware, & Marshalls).
- ◆ Select hardwood pieces for the base (7" x 7" x 2") and the spindle of the lamp (3" x 3" and up to 5" x 5" and around 12" in length).
- ◆ Small waste block of wood to make a jam chuck for one of the woodturning steps (to be used if the spindle was drilled completely out before turning the spindle design).

Lamp Base: The demonstration was started by explaining how to prepare the base block and turn the base. First, Greg drilled a 1/2" hole in the center of the base piece using a drill press. This hole was then used to mount the base on the lathe using a screw chuck set up. The hole was used later to insert a threaded rod through the base and spindle to wire the lamp. Second, the base was put on the lathe and rounded and shaped for the design planned, including an outer rim that allowed the base to sit better on a flat surface (slightly concave bottom). Third, a 1/2" deep recess was turned into the bottom of the base and the diameter of the



tenon was the width needed to safely hold the piece in the chuck jaws



used. Fourth, a 1/4" hole was drilled by hand (with the base still in the screw chuck) through the side of the base to accommodate the wire later when assembling the completed lamp. Alternately, the base could be on short feet to allow the wiring to pass under the completed lamp.

The base piece was then reversed using the inside tenon and a chuck with adequate jaw size to hold the piece. The top was shaped



according to the design planned to connect with the upright spindle of the lamp. A 1" wide hole about 3/4" deep was drilled into the center of the top to receive the tenon on the bottom of the spindle. The base was sanded, finished, and then set aside for later assembly.

Remember, the *Monthly Challenge* for January is a lamp base. The December Challenge is the Super Challenge Talked About on Page 1 *What will you make?*

Fabricated Spindle



Lamp Spindle: Greg had fabricated a spindle in advance of the demonstration by laminating pieces of wood together that allowed for a 1/2" channel down the center of the spindle (alternately a 1/2" drill bit could be used to drill a center hole in a solid piece of wood). He explained that when fabricating the glued up spindle block, small 1/2" pieces about an inch

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or so long should be glued on each end of the channel so that the spindle can be centered using those end pieces. After the spindle was completely turned, those short end pieces

covering the channel were drilled out using a 1/2" drill bit and a hand drill.

The pre-fabricated spindle was put between centers and turned to the design Greg wanted. He explained that if the spindle had been drill out completely then a jam chuck would need to be made with a 1/2" tenon to fit tightly inside of the 1/2" center end hole in the spindle. Greg had graphed out the profile of the spindle and then used that information to create a story stick to help transfer the design to the spindle for turning. The base of the spindle was carefully turned to match the dimensions in the base piece previously turned and to match the 1" diameter tenon hole previously drilled in the base. The body shape was completed as designed and the base and spindle were matched for fit. The spindle was sanded and finished.



Lamp Assembly: The spindle tenon was glued into the base piece, clamped together, and allowed to dry. Any final finish work needed to be completed at this stage. The lamp base and spindle were measured for the length needed to allow for washer and nut on each end of the threaded rod. The lamp was assembled by inserting the threaded metal rod through the spindle and base and secured on each end with a washer and nut provided in the lamp kit.



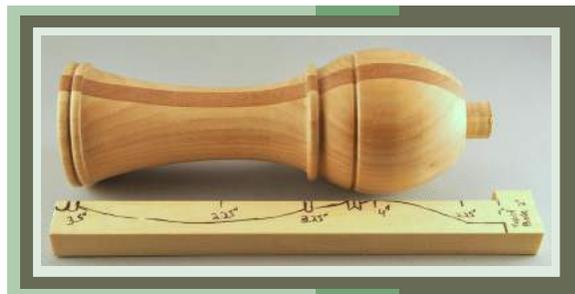
Lamp Part Kit

The power cord was run through the side of the lamp base and up the inside of the threaded rod. The wire was then attached to the lamp socket and socket assembly wired as shown in the lamp kit. Greg warned that the wiring should follow all safety instructions, such as using an **underwriter's knot** [right] with the two wire strands before attaching to the lamp socket. Then the bulb and lamp shade were attached. Greg suggested that an extra woodturner's detail could be to turn a finial piece to attach the lamp shade to the harp that holds the shade above the lamp socket and bulb.



Underwriter's Knot

Write up by **Greg Potter & Chad Dawson**
Photos by **Greg Potter & Phyllis Radford**



Story Stick

