

# How I turn Lighthouses

By Brad Adams

Here's a quick description of how I turn my lighthouses. They are not exactly works of art, but people seem to love them. They take a lot time to make, so I can't recommend them as a money making item, but they are a unique gift for someone special.



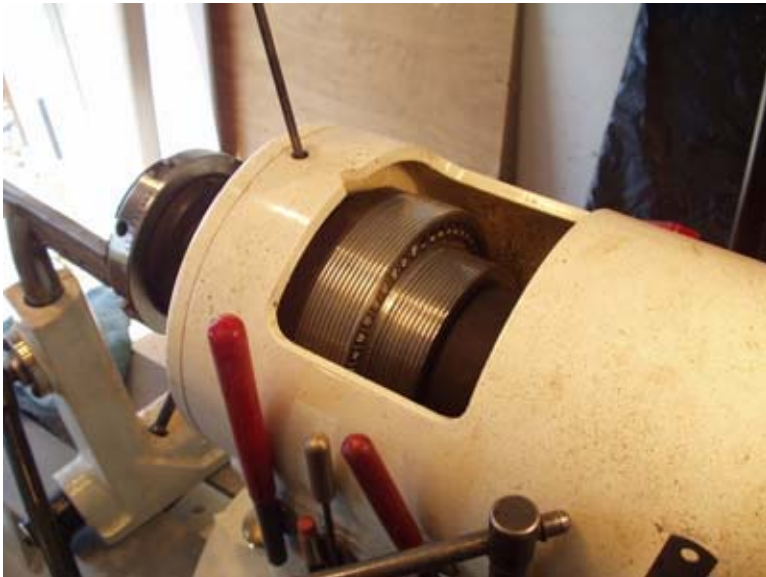
**Photo #1**

1. Rough out between centers. This blank is about 9" long.
2. Turn a tennon on each end to fit your chuck jaws.
3. Use a thin parting tool to mark out where you will separate the roof from the base (right side). I only part in about 1/2 ". I left the roof section this piece large enough to allow for a tall finial.
4. Use a thin parting tool again to mark out where you will separate the base from waste tennon (left side).



**Photo #2**

5. Mount the base in a chuck and bring up the tailstock for support.
6. Finish shape and sand the base (Good skew practice).
7. On open pored wood like redwood I apply a coat of sanding sealer at this stage.



**Photo #3**

8. Lock the indexing head to top dead center. On my lathe that is 48.



**Photo #4**

9. With the spindle locked, mark top dead center on the piece that will become the roof. This is so you can line up the grain pattern later.
10. Release the indexing head.



**Photo #5**

11. Part off the roof. I usually part most of the way through with a thin parting tool and finish the last 1/2" with a hand saw.



**Photo #6**

12. Recess the top of the base about  $\frac{1}{4}$ ": leaving about a  $\frac{3}{8}$ " rim (If you think this scraper is ugly, wait until you see the next one).
13. Sand the top of the base.
14. Lock the indexing head back to top dead center (Photo 3).



**Photo #7**

15. Next drill the holes for the brass posts. It's important the holes be straight and evenly spaced. To accomplish this you will need to make a drill guide jig. This jig is simply a piece of oak on a tool post. I used a drill press to drill a  $\frac{1}{16}$ " hole on one end. It's shown here with a  $\frac{1}{16}$ " drill bit inserted in the hole. The jig is set up so the bit is parallel to the bed ways and at spindle height.

16. Using this jig and the indexing head drill 4 evenly spaced holes about 1/8 “ deep in the rim about 3/16” from the edge. If this picture is confusing to you, skip ahead to Photo #13 to see the setup from a different angle.

17. Finish sand the base.

18. If you are going to use a friction polish, finish the base now.



**Photo #8**

19. Part off the base (sorry no picture but you can figure it out).

20. Sand the bottom. I power sand using sanding disks held in a Jacobs chuck.

21. Lock the indexing head to top dead center again (Photo 3).



**Photo #9**

22. With the indexing head locked, chuck up the top making sure that your mark is at top dead center again. This is important if you want the grain pattern to line up.
23. Release the indexing head.



**Photo #10**

24. See, I told you I had an uglier scraper. Recess the underside of the roof about  $\frac{1}{4}$ ", again leaving about a  $\frac{3}{8}$ " rim. Be sure the inside lip is square because we will have put this on a jamb chuck.
25. I leave a small nipple on the underside to screw an eyelet into.



**Photo #11**

26. Drill a tiny hole in the center of this nipple using a push pin or T pin.



**Photo #12**

27. Set a pair of dividers to the distance between holes on the base.

28. Transfer this measurement out to the underside of the roof (sorry no picture of this step).

29. Lock the indexing head to top dead center again (Photo 3).



**Photo #13**

30. Next drill the holes for the brass posts in the roof. Using this jig and the indexing head, drill 4 evenly spaced holes about 1/8 " deep in the rim about 3/16" from the edge.



**Photo #14**

31. Sand and finish the underside of the rim. Remember this has to be mounted on a jamb chuck, so don't round over the inside shoulder.



**Photo #15**

32. Reverse and mount on a jamb chuck.
33. Bring up the tailstock for support on the roughing cuts.



**Photo #16**

34. Finish turn, sand, and finish the top. In some cases I turn a finial out of ebony or some contrasting wood.



**Photo #17**

35. Cut 4 posts from  $1/16^{\text{th}}$  " brass rod (Ace hardware). I cut them about  $1 \frac{1}{4}$ " long using a combination square as a jig.



**Photo #18**

36. The slot in the combination square holds the brass posts perfectly.



**Photo #19**

37. Using a tack hammer, tap the posts securely into the holes drilled into the base.  
(sorry for the distracting picture but you get the idea.)



**Photo #20**

38. Using a bit of brass wire, attach a tiny screw eyelet to the crystal. I get my crystals from a company called Light Stones. <http://www.lightstones.com/>  
I usually get the round 20mm AB for about \$5 each. The AB stands for aurora borealis. That means they are coated to act like a prism and toss rainbows around the room. The standard crystals are a buck or two cheaper but just don't have the same appeal.

39. Screw the eyelet into the hole in the bottom of the roof.



**Photo #21**

40. Line up the grain pattern and insert the posts into the holes under the roof.
41. Carefully push the roof down onto the base, but not too hard. It's nice to be able to pull the roof off and clean the crystal from time to time.



**Photo #22**

**The finished Product**