

Lidded Box in a Bowl, by Rich Parker

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1) Make the bowl:

- 2) Wood selection; Start with a rough turned bowl that is dry, with enough thickness in the bottom to support a box... ~ $\frac{3}{4}$ to an inch...
- 3) Reverse chuck via jamming the bowl to the spindle with the tailstock.
- 4) True up the existing scroll chuck mounting spigot and rough turn the blank to balance it better. (Spigot dimensions for the Nova 75 mm jaws is 78 to 99 mm). You can rough shape the outside of the bowl. Remember that the bowl's true center will shift when it is mounted in the scroll chuck and additional turning will be required.
- 5) Mount the scroll chuck and attach the bowl into the chuck.
- 6) Begin by truing the rim. Make a final pass on the outside of the bowl and clean up anything that is out of round. Then, start shaping the inside of the bowl. Don't go all the way to the bottom so we can define the box diameter.
 - a. Choose a diameter for the box and mark the circle with a compass and pencil. This will be the outside dimension. Mark another circle inside the first, with about an $\frac{1}{8}$ " radius smaller.
 - b. Continue turning the bowl's inside and develop the transition zone to the boxes base. Consider whether you want a sharp transition or a gradual radius transition. The latter is easier to sand later.
 - c. When you are happy with the bowls rim thickness (~ $\frac{3}{16}$ " to $\frac{5}{16}$ "), begin shaping the inside of the box section. Keep the rim around an eighth of an inch or so. Be careful on the depth of the box and don't turn all the way to the bottom surface and make a doughnut.
 - d. Finish sand all surfaces.
- 7) Reverse bowl using a vacuum chuck or you can jam it between the chuck and the tailstock. Use a shaped block of wood and a pad if you are jamming the bowl. Turn the spigot off and shape the foot for the bowl. Finish sand the foot.

8) Make the lid for the box:

- 9) Mount the blank in the scroll chuck. Use a waste block if needed to fit the jaws properly.
 - a. Measure the outside diameter of the boxes' rim. Turn the blank into a cylinder that matches the diameter or is just a bit oversized.
 - b. True the face end of the cylinder.
- 10) Form a rabat on the end with a dimension that will allow a slip fit into the box opening. Sneak up on this and take your time testing the fit until correct. Using a slight taper will allow you to work up to a perfect fit. Back cut the edge of the rim that you are making to allow only the outer edge to fit the box neatly. Hollow out the inside of the lid to your taste and decorate as desired. Finish sand the inside of the lid.
- 11) Begin shaping the lid's top side. You also want to allow material for a knob. Rough out the general shape and part off the lid.
- 12) Make a jam chuck with a scrap of wood that will accept the lid's rabat. Make a snug fit so sneak up on the dimension. Use masking tape to secure the lid in the jam chuck.
- 13) Finish turn the top side of the lid and shape the knob. Finish sand the top and remove from the chuck...
- 14) Your top should fit nicely into the bowl... Add your preferred finish and your done.