

# HORNSBY DISTRICT WOODTURNERS INC.

Established 1983

## NEWSLETTER JUNE 2018

The monthly meeting commenced with the usual welcome from Lindsay on what was a cold Saturday outside our heated venue.

Not much to review for housekeeping except to again mention that a projectionist is required to work with Lloyd particularly now as the Shed is purchasing some new video equipment, the Sorby demonstration on Friday 22 June at the Shed and our Winter Luncheon on Wed 27 June.

Our demonstrator for today was member Greg Croker who began the day by discussing his subject *Turning a Double-decker (Jewellery) Box*. As Greg was unaware if similar boxes have previously been made he first described the concept and development of the box showing a few rough prototypes, the final plan, and a completed box as per the pics. (If you are aware of similar box concepts please let Greg know).



Start with a roughed down 100 mm diameter by 150 mm long blank of dry wood (in this case dry Australian Cedar) and a smaller cylindrical blank of dry Huon Pine 80 x 80 mm with turned spigots on each end of the cedar blank and on one end of the pine. As well a centre hole 8 mm in diameter was drilled through the latter. Reserve a scrap of Huon pine to turn a 'finial like' handle for the inner turning later.

Part off the cedar blank at 80 mm from the chuck jaws with a parting chisel to form the base of the blank for the box (reserving the remainder for the box lid) and turn down to 76 mm at the narrowest planned width of the box 55 mm from the chuck jaws the width of the parting tool.

At the bottom of the base turn two beads 4 mm (100 mm in diameter) and 3 mm (97 mm in diameter) wide respectively, and at the top of the box turn a 90 x 3 mm bead.

Using a medium sized detail gouge remove the surplus wood between the two smaller beads to give a smooth concave curve passing through the 76 mm minimum planned outside diameter. Note that the minimum diameter height of the box is designed to approximate the 'golden rule' for maximum sight appeal?

To improve the appearance add a fillet using a parting chisel close to both smaller beads about 1.5 mm wide. Above the top bead turn the rim to give a completely flat and level surface. With a 25 mm drill (a twist drill might be best as it will be cutting into end grain), drill down to about 15 mm from the base in preparation for 'hogging-out' the box centre.

The maximum for the box's internal diameter should allow for a 3 mm wall thickness at its minimum outside width, however the design also calls for an inside ledge to seat the inner turning. This ledge needs to be 2 to 3 mm wide, hence the initial maximum internal diameter should be at least 12 mm less than the outside diameter.



Turnout the centre using a bowl gouge, scrapers and finally a square scraper, to obtain a flat bottom say 10 mm above the base, with parallel sides the length of the inside of the box.

Then carefully open up the internal dimensions of the box to about 70 mm in diameter from the top down to 36 mm in depth finishing with a square scraper to give a crisp horizontal ledge 2 to 3 mm wide around the box's inside at this depth.



Again using the square scraper carefully open up the the top of the box to 78 mm diameter and 4 mm in depth, with parallel sides to accommodate the lid.

Lightly sand the inside of the box making sure not to round the square corners and the ledge; sand the top and the outside of the box also to say 400 or 600 grit. Finish the base with any preferred wax, oil or spray and remove from the lathe.

For the box insert a contrasting wood colour was chosen. Place the Huon pine spigot into the chuck and turn, and sand, the outside to the internal diameter of the box's top less 1 mm maximum. Keep checking while turning to ensure a close but non-catching fit. Square the end of the blank. A close fit of this insert into the top of the box, as well as a crisp 2 to 3 mm wide ledge is needed to present a good image when the box is opened.

Next turn the inside. The wall thickness of the insert is designed to be 1.5 mm maximum and the base 2 mm thick. Measure the depth required for the insert, the length between the two ledges less 2 mm maximum. Mark this length on the turning and partially pare down to say 30 mm diameter at this length.

Turn away the inside of the insert, using a small gouge and small scraper initially followed by a sharp square scraper to remove the wood near to the wall and obtain a final thickness of 1 to 1.5 mm. Similarly organise for the base to be turned to 2 mm thickness. Do not turn away the internal wood to the required thickness in one or even two runs, use about 3 or 4 taking care as these dimensions don't leave much strength or room for error.



Sand the inside and fully part-off the insert. Examine the insert's base and sand.

The insert is now ready to have the finial-like handle turned and fitted. The handle is designed to protrude 5 mm above the rim of the insert, be about 13 mm in diameter with a thinner spindle, and a flange at its base to assist with gluing the unit into the insert.

Turn this handle unit from a scrap of pine using pin jaws if available allowing 3 mm minimum for the glue spigot to pass through the base. Ensure the correct diameter for the spigot as this will be visible on completion. Sand and finish the turning. The design is not critical but thin, fine turning is appropriate particularly if the box is for a lady.

Push the handle into the insert and check for best fit then PVA glue in place. Once the glue has hardened sand away the spigot level with the base and finish the whole unit with the preferred finish.

Check that the finished insert does in fact 'insert 'nicely' into the box.' It should settle slowly into its designed section of the box.



The design of the lid is 90 mm diameter to match the base top and approximately 25 mm high with the lid's handle matching the insert's handle. To turn the box lid chuck the other section of the cedar blank above. Turn a spigot to slightly more than the diameter required to fit the base say 75 mm and 3 or 4 mm deep. The inside diameter of this spigot is about 10 mm less and sufficient to hold the insert stable when the box is tilted.

On the outside of this spigot turn a flat surface/flange to mate completely with the base equivalent, continue to turn the lid to match the 90 mm diameter bead at the top of the box base and then about 15 mm into the centre of the lid top. Stop here and turn the remainder of the lid top after finishing the underside of the lid.

To complete the underside of the lid, turn out about 10 mm in a pleasing concave arc to anticipate the profile of the lid top and to accommodate the insert handle height. Turn a flat where this arc meets the spigot to improve the appreciation under the lid. Sand the underside of the lid carefully except for the outside of the spigot, and finish.



Carefully, checking frequently, reduce the diameter of the outside of the lid spigot until it tightly fits into the box base (reduce the spigot base depth if necessary) for a good fit. Sand these adjusted surfaces very gently and finish.

Part the lid from the blank allowing 30 mm of wood to complete the lid and handle. Using the remaining wood on the chuck turn a jam chuck to tightly hold the part completed lid. Check for squareness and stability and bring up the tail stock for added security. Turn the lid using a detail gouge to obtain a pleasing design, a lid thickness of say 7 mm and also blending into the lid handle.



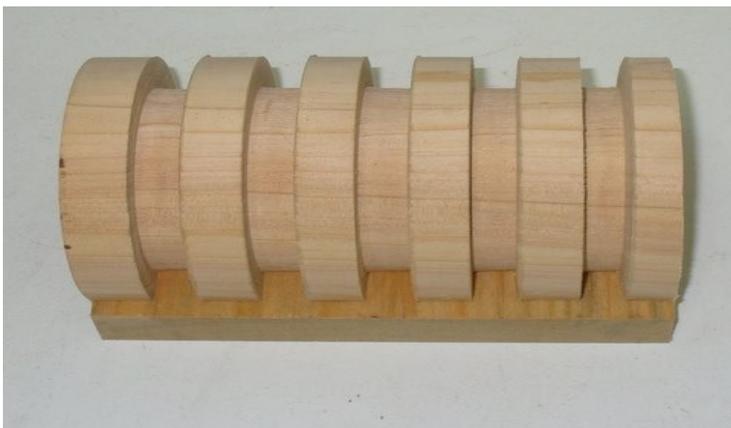
The design of the handle should match the insert's handle, be about 23 mm diameter and such that about 5 mm of wood can be turned from its top to remove the tail stock's hole. Sand and finish the lid.

Remove the lid from the jam chuck and adjust the jam chuck to hold the top of the box's base. Bring up the tail stock for secure holding. With gentle cuts part away the chuck spigot until only a narrow spigot remains.

Remove the tail stock and turn away the remaining spigot, then even more carefully turn a concave base say 5 mm deep leaving only a 10 mm wide flat base at the periphery for the box to rest upon. Add a couple of grooves to embellish the base if desired. Sand and finish.

Fit the insert into the base and place the lid on the box and it is complete.

Following from the demonstration Lindsay ran Show & Tell.





Ian showed a substantial diagonal fluted carved bowl of silky oak well finished with spray lacquer. Brian showed three large horizontal rimmed platters made from an unknown eucalyptus species showing some good grain and finish. The third platter was plate-like with a classical design and finish from cedar, very nice. Also shown was a 'toast' like holder for a new set of jeweller's pliers.



Rusty showed a very nice wavy winged bowl following on from Colin's demonstration last month; Rusty also showed a toy car made from pine offcuts sort of Jeep like and quite interesting.

An unrecorded member turned a nice Claret ash broad flanged bowl and finished well.

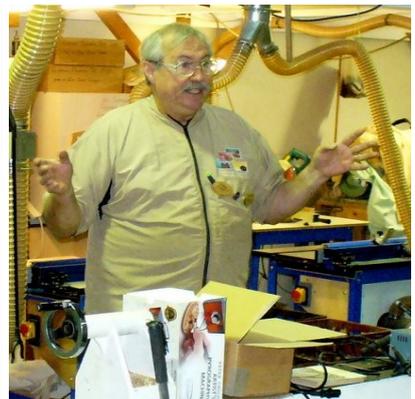
Information Exchange finished the day with Brian advising of this latest purchases. Only a couple this month. The jewellery pliers are shown on his custom designed rack, and compression pliers with soft plastic jaws to return misshaped metal tubes to their original diameters, ie for pens.



Other activities for June of interest:

After a few days spindle turning Burdekin Plum wood for his bagpipes Bill entertained some Shed members over lunch with a couple tunes from the completed unit.....most enjoyable.





Carbatec/Robert Sorby demonstrated their wares (turning chisels and ProEdge) at the Shed on Friday 22. The pics show some of the 40 attendees with Chris Pouncy turning, and as well Brian smiling after winning the door prize of a Sorby Turnmaster Chisel set.



Finally a number of woodworkers/turners celebrated our Winter Luncheon at the Pennant Hill Hotel on the last Wednesday of the month enjoying the surprise Wednesday special of Chicken Schnitzel (or Angus beef rump steak), chips and salad plus a schooner of beer for \$15!

A very tasty end to a busy and pleasant month.

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