June 2018 - John Lancaster

After a very much appreciated all day demo for the club in June last year John returned this evening to demonstrate his method of constructing a 4- legged stool, an object he frequently makes in a range of styles and sizes …

As illustrated, stools taller than 12” usually benefit from the addition of cross-members.

John mainly uses Ash for the stools and, to start, an ash spindle was mounted in the lathe using a steb centre in the headstock.

Top Tip 1 - if using a 2 or 4 prong centre then it is recommended to put a cross in the end using a band saw to avoid splitting when turning the leg.

John’s favoured design for the legs is with 3 beads at the top of the leg such the top 1.5” is used for the leg tenon (min diam 1.25”), followed by 1.5” for the 3 beads. First turn the spindle to round using a spindle roughing gouge and then turn down the top 1.5” to the required diameter of the leg tenons.

Top Tip 2 - the leg tenon is best turned down after the holes in the seat have been drilled (see later) so that the fit can be adjusted accordingly taking account of the fact that the leg tenon may shrink before gluing and making it not so tight that the glue is all forced out. The latter can be allowed for by putting a groove or spiral recess into the leg tenon but make sure that when positioned the groove is not visible.

Cut the 3 beads using a beading or parting tool but don’t taper down the rest of the leg to the foot until you are happy with the beads so that, if there is a problem, the spindle can be reversed in the lathe to allow the leg tenon and beads to be turned from the opposite end! **(Top Tip 3)**

Taper the rest of the leg down to the foot with a profile that gives a slight indent rather than a bulge and finish with a planing cut using a skew chisel. Finish with 2 coats of finishing oil and sand thoroughly before waxing.

Having cut/turned a seat of appropriate thickness to round, mark the centre and then add 4 lines at right angles before marking where the leg holes will be drilled. These should be a distance from the edge such that when the legs are inserted at a 15degree angle the foot of the legs protrude slightly from the outside of the seat. The holes are best drilled using a sawtooth drill in a pillar drill with the 15degree angle being created by using a wedge.

Top Tip 4 - if using a hardwood it is better to clamp the wedge and seat before drilling.

Mount the seat using a plate and short screws - the screw holes will be turned away when the indent is made in the seat.

Top Tip 5 - if an indented seat is not required then the seat could be mounted using a glued sacrificial plate rather then losing seat thickness by turning a spigot.

True up the underside of the seat and then mark and cut an indent which will be used to reverse mount into the chuck in expansion mode. John often creates a decorative boss in the middle of the underneath of the seat as well a small cove between the indent and the leg holes after levelling up the rest of the underneath using fine pull cuts.

The edge of the seat was then chamfered to make the seat look thinner making sure that the chamfer does not go too near the leg holes!

Top Tip 6 - the legs are inserted at a 15degree angle and therefore if an extra 15degree chamfer is added over the leg holes the beads on the feet will be nicely parallel to the seat bottom.

Finally, check that the chuck will accommodate the indent in expansion mode before remounting the seat into the chuck to finish the top. First shape the top edge so that it blends into the bottom edge and then indent to top surface to remove evidence of the screw holes but beware of taking too much off such that the leg holes are exposed!

When the feet are installed cut to length so that they sit flat and chamfer the edges to both remove the tailstock holes and minimise damage to the grain if the stool leg gets rough treatment in use.

John prefers to hand sand the ash seats in the direction of the grain before finishing.

To round off the evening John demonstrated how easy it is to create simple yet unique and attractive bottle stoppers from scraps of wood that we all have in our workshops.

Thanks to John for another very practical and useful demonstration.

David Langan