

Kurt's clinic

Kurt Hertzog gives some answers to readers' questions

Pen tubes

Question: I am having some of the tubes in my pens breaking free. Sometimes this happens when I am turning them or, occasionally, after they have been assembled. It doesn't seem to follow any pattern. Any ideas on what I can do to prevent this?



A good bond to the tube requires some tooth. If needed, scuff the tube with a coarse grit sandpaper to remove the drawing lube, oxidation, and provide some tooth

Answer: There are three things that come to mind with a problem such as this. The cause could be as simple as poor adhesion to the bonding surfaces. Virtually any adhesive you might use likes surfaces with a bit of 'tooth' to bond to. As such, your tubes need to be free of oxidation, drawing lube, and have a scuffed surface on the brass. Many kit suppliers are finally providing pre-scuffed tubes. Also, the hole needs to be properly drilled. If you've burnished the inside of the hole by excessive speeds and feeds or a dull drill, you leave behind a surface that is difficult to bond to. Speaking of holes, the correct clearance is important. This is particularly important based on your adhesive choice. Too much gap and the adhesive can't work well and too little may squeeze off the necessary adhesive as you insert the tube. Trying to get



The clearance between the tube and the hole in the blank is key to a good bond. Different clearances are optimum for different adhesives

thin cyanoacrylate adhesive (CA) to fill gaps is fraught with problems. With the correct clearances, any fresh adhesive, whether CA, epoxy, or polyurethane should work well. There needs to be sufficient adhesive over the entire tube to wet the inside of the hole, providing for complete coverage of the tube and drilled hole to obtain maximum strength. Too much adhesive and you'll have a clean-up issue with your glued-up blanks and too little will leave the bond weak and subject to failure under stress during facing, turning, assembly, or in final use. Properly done, your glue bond should easily hold up to the stresses involved during creation and use. Check on these items and you'll likely find you have room for improvement in one or more. Getting these items in order should minimise or completely eliminate your problems.

PHOTOGRAPHS BY KURT HERTZOG

Natural edges

Question: When I turn natural-edged bowls, I have a difficult time keeping the natural edging intact. Sometimes pieces of it are broken off during turning or when handling completed bowls. How can I re-attach the pieces or keep them there to begin with?

Answer: The easiest way to fix breakage is to avoid it altogether. By avoiding very thin walls you leave additional strength in the bond. Very thin walls are usually impossible to keep the natural edge intact over the life of the bowl. If you succeed in turning it, someone will be careless in handling it down the road and break off pieces. By designing and shaping to a bit thicker, you may be able to retain that edging longer. There are ways to strengthen and repair this bond. Many turners, for example, will use CA adhesive to try to strengthen the bond. Running



The bond of the bark is said to be better when the wood is harvested during the dormant season. Also, proper storage will reduce the degradation of the bond

thin CA along the seam will often add some strength. This can also be used to bond broken pieces back into place should they be broken. Reattaching is more successful with medium or thick CA in my experience. While my expertise certainly isn't dendrology, I'm told – and it makes sense – that the time when the tree is harvested can make a difference. When a tree is in the growth portion of the year, the bond between the bark and the inside isn't as strong as when it is in the more dormant portion of the year. For my geographic location, that means trees harvested in the winter yield a better bond than those harvested in the summer. Someone with more expertise may be able to better acknowledge or debunk this, but you can certainly experiment with your selection of woods and harvest times to see if there is any merit. You can also be

cautious of the storage of your blank prior to use. Drying, checking, and cracking of the ends can certainly have an impact

on the bond, so properly preparing and storing your harvested wood can only improve your results.



The wall thickness of a natural-edged bowl has a large impact on the strength of the bark bond and its ability to remain in place

Revolving tailstock centre

Question: I've seen a revolving tailstock centre with the point removed. What good does taking the point out do? Is it something I should undertake?

Answer: Removal or withdrawal of the centrepoint back on a revolving tailstock centre – if it is removable, as some are – offers two advantages to the turner. First, it allows for safe mounting of the work without poking a hole in the wood. That hole, or holes should you shift your mount during turning, separates the wood fibres and will require cutting away to remove the work-mounting damage. Sometimes this is unnecessary or unimportant but, for most turnings, removal makes for a better appearance. There are often marks left from the revolving tailstock centre ring, but these are less damaging and easier to remove.

More valuable to most is that the removal/withdrawal of the back of the

centre point in the revolving tailstock centre allows for repeated repositioning of the revolving tailstock centre without the issue of the point-damaged wood. If you want to slightly reposition the revolving tailstock centre, a separated fibre point hole diminishes your ability to make small adjustments. The point simply pushes the newly separated fibres into the other position and your "micro adjustment" doesn't take hold.

The turners who usually are keen to make repeated and small adjustments are those repositioning a bowl for figure appearance or balancing the peaks and valleys of a natural-edge bowl. Of course, there are others taking advantage of repositioning needs but those two uses are common. I find that removing the point is difficult if you've used the adjustable centre extensively. Whether you should remove the centre pin or not is a function of safety. Is it safe to do so and does that centre-pointless revolving tailstock centre bring benefits to your turning needs? The point gets securely seated and really takes some effort to remove. If you can afford to, have two revolving tailstock centres, one with the centre point and one where it can be removed and possibly allow extra inserts to replace the point for more functionality. That allows you to quickly select the one that you need for your current application.



I find use for both a revolving tailstock center with a point and with the point removed or withdrawn



There are a host of aftermarket points available for special needs turning projects

Send your questions to Kurt's email: kurt@kurthertzog.com