

# The Turn Commandments

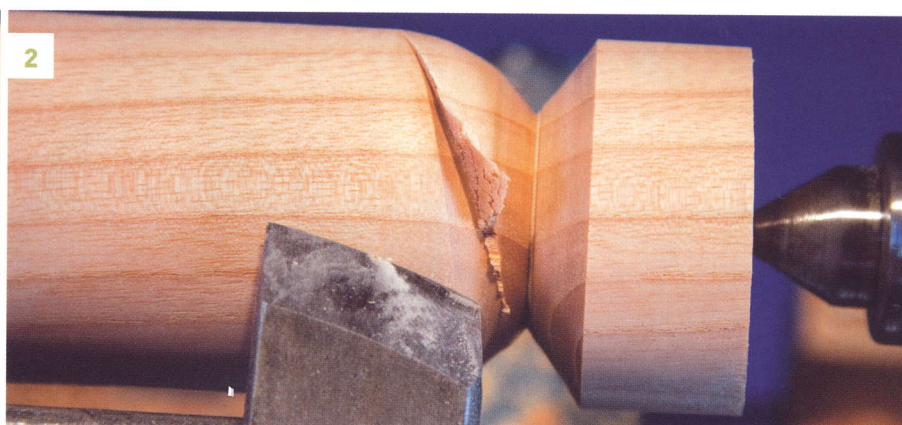
A list of absolutely basic stuff turners tend to forget.

By Richard Raffan.

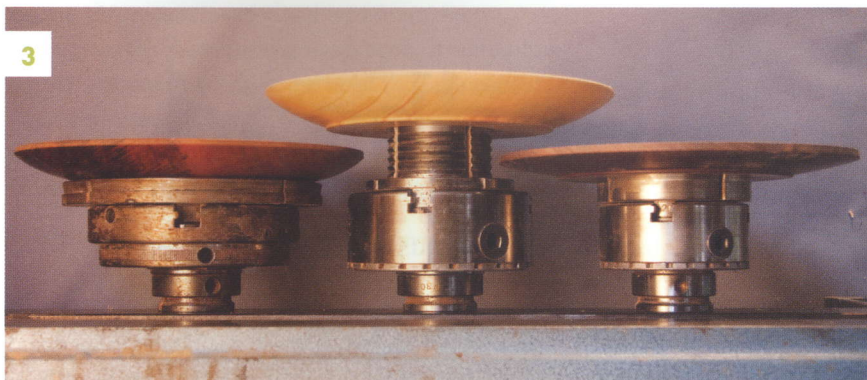
Recently, three of us were watching a turning demonstration. As the guy mounted a rough-turned planter or deep squarish bowl, one of my companions remarked that this man always tightens the chuck enough to split the wood and he guaranteed it'd fly off the lathe. I thought the jaws he was using were too small for the job. With the rest a bit low, he thrust the blunt square-end scraper into the end-grain and heaved the block off the lathe. The job went back on the lathe, and the same thing happened again. We would like to have helped, but I learned our demonstrator was secure in the knowledge that he knew everything he needed to know about turning, so wouldn't be open to any advice. Years of hands-on teaching have taught me how often even quite experienced turners seem to forget these very basic points when at the lathe, so here's a list for the rest of us.

**1. Keep tools sharp.** This sounds so basic and so obvious, but one of the most difficult things for any woodworker to learn is when a sharp tool could be sharper. If it even vaguely crosses your mind that a tool might need resharpening, go straight to the grinder and do it. As with turning, don't push the tool into the grinding wheel: let the wheel come to the tool. All you need do is hold the tool firmly in position as the wheel comes past. Professional turners sharpen freehand for speed, and it's a nice skill to have, but jigs make sharpening much easier and help you maintain the shape of the cutting edge. Be warned that jigs are not a cure-all: you still need to take care to keep the tool moving on the grinding wheel.

**2. Let the wood come to the tool, let the lathe do the work.** The lathe spins the wood; all the turner has to do is hold an edge in a position so that as the wood passes it's sheared off. The portion of the edge cutting is usually at about 45° to the oncoming wood (indicated by the arrows (**photo 1**)).







**3. Let the wood come to the tool.** Wood moves slower near centre, so you need to slow the rate at which you move the tool into the cut the nearer you are to centre. If you push the tool into the wood you'll often tear the grain, especially on endgrain.

**4. Remember the 1-2-3:** One, tool on rest; two, bevel on the wood; three, lift the handle to arc the edge into the cut.

**5. Tame the skew chisel and other tools are easy.** Scary skew chisel catches (photo 2) only mess up the wood: gouge catches on bowls are much more dangerous.

**6. Deep-fluted roughing gouges should never be used for bowls.** They are for roughing spindle blanks between centres.

**7. Unsupported edges will catch.** Never start a gouge flute up.

**8. Scrapers tilt down** cutting flat surfaces like a bowl base or flat endgrain as in the **main photo** opposite.

**9. Move with the tool.** Keep your feet a shoulder's width apart and the tool handle into your side, then sway with the tool handle from your knees. If you keep your hand near the ferrule rather than the end of the handle your hand will move less and you'll be less cramped physically.

**10. Sound is important.** Ascertain the cause or origin of any sound you don't recognise. If the tool suddenly stops cutting, chances are you've hit something hard. It could be silica or sand in the wood, but if there is a clicking sound, look for a nail, stone, or some other hard object.

**11. There is no 'correct height' for the rest.** The precise height of the rest depends on the tool you are using and on your height in relation to centre. On a large diameter spindle the rest needs to be high so you can stand comfortably with the handle dropped slightly below horizontal. If you are hollowing with a scraper, the rest needs to be at least centre height, even a little above.

**12. Never stand in line with the work when you start a lathe,** particularly when the project is held only using a faceplate or chuck with no tailcentre support. If the speed is too fast you don't

have time to evade the wood as it flies off the lathe. Sometimes wood just flies apart: when I turned on the lathe to sand the redgum bowl in (photo 4) a chunk flew off. You don't want to be in the way of that sort of missile. If your lathe has variable speed control, develop a habit of turning it back to zero then up very slightly so you always start the lathe at a safe speed.

**13. The greater the diameter a chuck grips, the more secure the grip.** The plates in (photo 3) all have a 150mm diameter foot. The most securely mounted is to the right where Vicmarc Dovetail Jaws close around the 2mm high foot. Only slightly less secure, to the left, 100mm Step Jaws expand within a recess, but this limits the depth you can hollow to on the other side. The 65mm Shark Jaws (centre) expand within a recess offering minimal support when hollowing, but this is better than if it were gripping a tenon which would split with too forceful a cut when hollowing.

**14. As a novice, learn by turning some sort of spindle between centres with the grain aligned with the length of the blank,** parallel to the lathe axis like the blank to the rear in (photo 5). Bowl blanks have the grain run across the face of a blank like the blanks cut from the board in the same photo.

**15. When abrasive stops cutting, throw it away and get a fresh piece:** 120 grit abrasive does not become 180 grit with use, then 220 grit, and so on. Fold abrasives in three, so the cutting surface sits against backing. Fold cloth-backed abrasive with the warp—usually along the lettering.

**16. Sharp rims cut deep.** It's very easy to create razor-sharp edges as you turn, particularly on bowl rims. If your hand slips onto one it'll slice you to the bone in an instant, so soften edges with a dab of 100-120 grit abrasive, or use a gouge on its side.



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