

# Tool handles

Jim Duxbury shows you how to make your turning more comfortable by turning some custom handles for tools or lathes



## JIM DUXBURY

PHOTOGRAPHS BY JIM DUXBURY



### About the author:

Jim is a woodturner and inventor who thinks and creates 'out of the box.' He makes a variety of unusual items, including kaleidoscopes, wooden hats, pens, and even a working

Foucault pendulum. More of his fine wooden objects and plans can be found on his website. Jim showed us how to make his marvellous wooden chandelier in issue 269, which was inspired by a trip to Italy.

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The mini lathes in my workshop are real workhorses; I use them at least 80% of the time. Small projects often require many different operations that necessitate changing drive centres, chucks, tailstock centres and wooden blanks frequently. Anyone who has worked on a mini lathe for an extended period of time will know what it is like to tighten the tailstock and banjo repeatedly. Pressing on those little, short and thin steel handles can actually hurt your hands after a while. Many turners use small mallets and extension bars to add pressure when needed. For me, that means another operation, another thing to pick up and they are not very convenient to use.

My solution was to turn a wooden handle

for each of these levers. This adds length for more leverage and diameter for a more comfortable grip. That super smooth, well-waxed wood feeling in your hands gives a warm sense of satisfaction every time you use a handle. It makes you want to turn something really first class.

The handle I make here is cylindrical and of a large diameter to fit the palm of your hand, making for a good grip and lots of pressure. Note: different shapes of handles are made similarly for specific operations. A knock-out bar has a ball shape to fit in the fingertips for a tapping action and the tailstock handwheel uses a grooved cylinder shape with a bulbous end, making it easy to spin with the fingers.

**TOOL HANDLE DIMENSIONS**

**INFORMATION**

**TIME TAKEN & COST**

**Time taken:** 30 mins

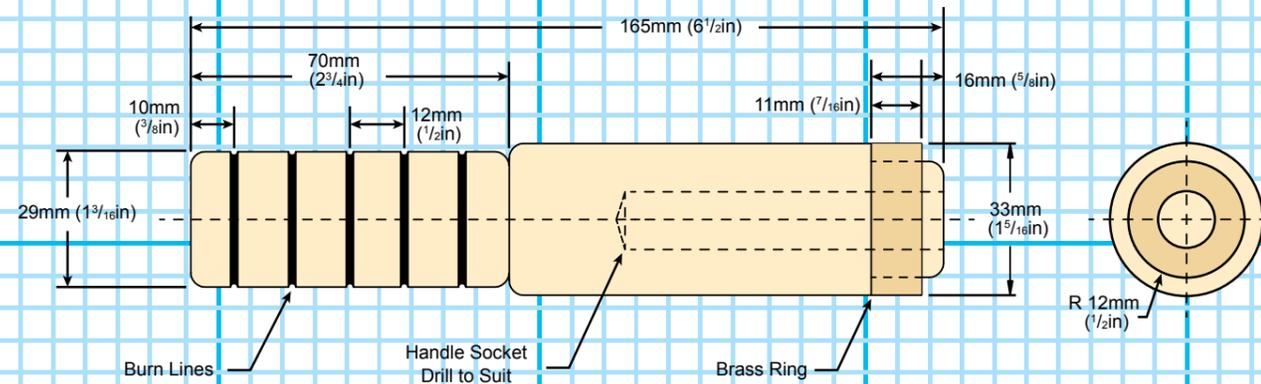
**Cost:** 65p

**TOOLS**

- 25mm spindle roughing or spindle gouge
- 10mm detail gouge
- 12mm parting tool

**ADDITIONAL TOOLS**

- Small set of callipers
- 25mm ID metal ring of copper or brass for the ferrule
- 400 grit abrasive
- Clear paste wax
- Epoxy cement
- PPE: facemask, respirator/dust mask and extraction



**1** The design for this project is similar to a turned wooden tool handle. To begin the project, you need two blocks of hardwood: one approximately 38 × 38 × 200mm for the handle; one approximately 38 × 38 × 50mm to make a cone adapter and a 25mm ID or 33mm OD metal ring of copper or brass for the ferrule. I am using ash (*Fraxinus excelsior*) for the wood and a 33 × 11mm ferrule



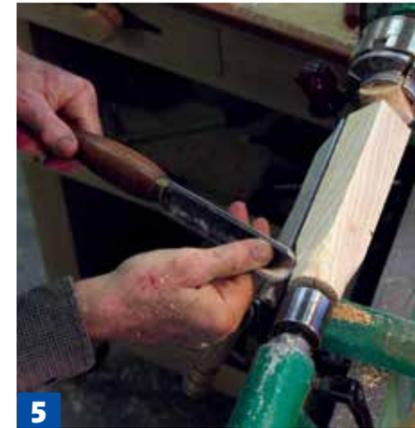
**2** Start by cutting off about a 12mm length of the brass pipe and mount the ring on a chuck. True up the ends by making light cuts with a 10mm spindle gouge and polish with 400 grit abrasive



**3** The next step is to measure the diameter of the metal lever the handle is to go on and the depth that the handle can come down onto the shaft, without conflicting with anything nearby. Take the 200mm long block of wood and drill a hole to this depth and diameter. Then, check the fit of the actual metal lever into this hole; it should be a snug fit, but not too tight

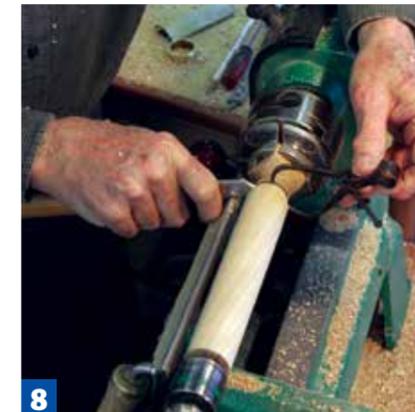
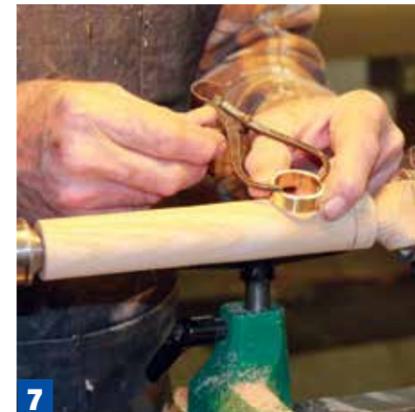


**4** You can then mount the 50mm block in a chuck and turn a long cone shape on the end of it. Mount the 200mm block between centres by inserting the cone shape into the drilled hole on the drive end and centre with the tailstock on the other end



**5** You can then turn the block round and start to form the handle

**6** Once the block has been turned round, hold the ferrule in position and mark a cut line



**7** Next, set the callipers to the inside dimension of the ferrule

**8** Using the parting tool, cut a tenon to fit the ferrule

**9** The tenon should be slightly larger than the ID of the ferrule, so that the ferrule has to be driven onto the tenon. Use a socket wrench and mallet for this operation

**“The tenon should be slightly larger than the ID of the ferrule, so that the ferrule has to be driven onto the tenon”**

**10** Once the ferrule has been seated, remount the piece in the lathe and cut the final configuration to make the handle. To decorate the handles, mark and wire burn lines



**11** You can then sand all surfaces smooth and finish as desired

**12** I use clear paste wax for most of my handles, but the finish you use is up to you



**Handy hints**

1. Personalise your projects – design handles to fit your hand so that adequate forces can be applied with ease
2. Customise – try the handle for clearances, fit and comfort before you glue it in place. If it's not to your liking, then change it
3. Economise – make handles to maximise the efficiency of each of your turning operations
4. Do not make your handles too long. Excessive pressure could possibly crack or break the castings
5. When sanding and burning, always wear a respirator
6. Do not remove the respirator after the operation has been completed, as that is often when the highest concentration of particulate is floating in the air

**13** With the lathe turned off, remove the waste end piece with a small saw, then sand and wax the end

**14** Now the handle has been completed, put a few drops of epoxy cement into the hole and press it onto the metal shaft. When the epoxy has hardened, try the new handle.

**15** I liked mine so much I made handles for all of my lathes. Note the configurations for each specific use ●



**ADVERT**