

KEEP YOUR TOOLS SHARP WITH A SHARPENING JIG

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One of the trickier aspects of woodturning is keeping your tools sharp. Everyone knows that woodturning requires sharp tools but depending on the wood used you can blunt your tools very quickly. Now if you happen to be at your woodturning club there is normally a plethora of people who can, freehand, assist you in sharpening your tools. Fast forward two weeks and you are in your shed doing your best to sharpen that tricky fingernail gouge and wondering just how you will go...

The first couple of times I used my grinder to sharpen some tools it was, to say the least, a bit hit and miss. I had a really nice deep shouldered gouge that I turned into a point that was for all intents, useless...I am sure I am not the first to do so but I know that there are many woodturners happily turning lovely ribbons of timber using razor sharp tools. So how are they doing it? Have they all just gleaned the wisdom to do so from their experienced club members? Some have done exactly that...some are just naturally skilful and intuitive and just know

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what to do...then there's the rest of us...floating somewhere in between.

So what's the solution? Well the answers simpler than you might think...the best way for a beginner (or a long time) turner to put on a repeatable edge on a chisel is to use a sharpening jig of some sort.

There are many fine commercially available sharpening jigs available on the market, running from a few dollars to more money than sense mega contraptions...and I would not begrudge a single turner buying any of them. Anything that makes sharpening easier has got to be a good thing... Now, as you may be aware from previous stories, Scottish blood flows through my veins and as a result, if I can save some money I pretty much will make it myself rather than buy it. So what I am proposing is a universal sharpening jig that I think you can make. Now making things is not everyone's cup of tea, but I do believe that most woodturners are a resourceful lot. I don't think it's not too much of a stretch to think that if you have access to a welder (or a mate who owns one) that you are capable of making this project.

What's involved I hear you ask? Not a great deal. Literally \$30 worth of steel and some jigs and brackets worth around \$40 will set you up for a lifetime of your sharpening requirements.

The setup consists of four pieces to the setup: the fixed bracket that is affixed to the workbench/grinder setup, the sliding tool rest that is used for gouges and skew chisels, a holder for the gouges and a fixed angle bracket to sharpen scrapers.

The fixed bracket consists of square tubular steel attached to 2 right angle brackets with a screw and nut welded to the side. The size is not too critical but the principle here is that the tubular fixed bracket should be a size above whatever tube you use for the other two tool rests e.g. if you are using 25mm

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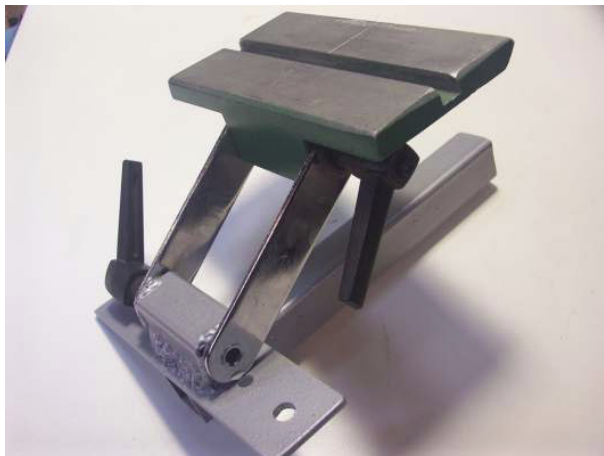
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steel tube with an outside of 25mm X 25mm for the tool rests then you need to use a steel tube with an inside of 25mm X 25mm. Now it should be a snug fit, yet slide easily one tube into the other. The tubing I chose was 2mm wall thickness and that seemed to be amply thick for the job at hand. I used an arc welder to weld the steel bits and I am sure that you could use any welder available to do the task at hand.

As can be seen it consists of about 300mm of square tube with the two right angle brackets welded to it. The brackets can be bought from any hardware store and are only a few bucks each.

Judicious use of a square and clamps to ensure its all kept in square when you weld it is essential. As can be seen the adjustment screw is nothing more than a hole drilled in the tube with a nut welded to it. Into this is a piece of all thread welded to a wing nut. Simple so far....once this is welded and painted with your favourite hue of paint, you mount this bracket so it lines up with the centre line of your grinder wheel. This is a bit of mucking around but worth getting it right but spend the time.

Next thing to make is the adjustable angle tool rest. I cheated and modified an existing one I already had available. I made a bracket to allow it to be used with the fixed (but adjustable?) bracket which gives it more flexibility than the previous fixed mounting.



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The third part of the jig is a sliding jig that is used to sharpen gouges and skew chisels. I have found that my attempts to freehand sharpen my skew chisel using the fixed angle platform has never been that successful, but with this jig, I have repeatable sharpness that I require. The jig consists of a long metal tube, sized to fit inside the fixed jig that is bolted to the workbench below my grinder. Mine is about 700mm long so it can accommodate the biggest skew in my chisel arsenal. To this is welded plate that has three "V" shaped brackets attached to it. One is welded to the centreline of the tube on top of the plate and the other two are attached to each end of the plate.

These are located so that the skew chisel can be place at either end, presented to the grinding wheel for the correct angle and repeatable sharpness achieved. The two end brackets are placed 130mm from the centreline of the centre V bracket:



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Its use in sharpening simple gouges is easy. Place the gouges handle in the ventral V shaped brackets and adjust it by sliding the jig in or out whilst contacting the grinder wheel. When the bevel is at the correct angle on the grinding wheel, lock off the wing nut and proceed to turn on your grinder and sharpen your chisel.

Sharpening skew chisels is equally simple. Place the skew on either the left or right side V shaped brackets and adjust it by sliding the jig in or out whilst contacting the grinder wheel. When the bevel is at the correct angle on the grinding wheel, lock off the wing nut and proceed to turn on your grinder and sharpen your skew chisel. If you placed it on the left side first, flip over the skew and place it in the right hand V and sharpen it, the angle being correct and not needed to be changed.

The adjustable angle tool rest is probably the one you have had the most exposure to – it consists of a platform (tool rest) and several adjustable angles to give the desired angle. It's fairly simple to use – adjust the angle to match the bevel angle of the tool you are sharpening e.g a round nose scraper and away you go...simple...

I have left the challenging sharpening chore to the end. Things like fingernail gouges and some of the trickier detail gouges have some pretty whack job angles, which would be incredibly tough to freehand replicate.

So I didn't bother to try and instead modified a microphone stand to act like a fancy store bought one. I did some research and worked out the ideal length (for me at least with my setup) from the centre of the adjustable angle to the tip of the point where it contacts the V was 250mm.

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