

HOW TO SHARPEN FORSTNER STYLE DRILL BITS

Written by John Lucas



Some special insights and techniques by John Lucas regarding Turning and Forstner Bits and Sharpening
I purchased an inexpensive set of Forstner style bit many years ago. I use them for all sorts of drilling operations. Now that I do mostly turning I use them to hollow some projects to speed things up. I had to make some vessels out of Bradford Pear for a client and had to do it in short order. So I chose the drill bits to speed up the hollowing. Wrong

decision. These things were so dull all they did was burning the end grain on the wood and if I had a smoke detector in my shop it would have been screaming. I decided it was time to do something about that.

If the bits are just marginally dull you can replace the steps that I do with the belt sander with hand held diamond hones like the one I use on the outside in the photos below. If it's as dull as mine were you need a more aggressive way to remove metal.

I start with a 1" belt sander. The first thing to do is sharpen the face of the bevel. I do this right next to the platen on the strip sander. I gently push the flat bevel against the belt so I can feel when it's flat. Then gently grind this bevel until I've polished the whole edge.





Then I sharpen the top edge of this bevel. You have to be careful when grinding this edge. You have to stay away from the center and avoid touching one of the teeth on the outside rim. It's also important to grind the relief angle. I set the bit on the sanding belt with the machine turned off. This lets me find

the proper angle. Then I turn on the sander and grind very carefully.

My drills come in two styles. Round outer rim and toothed outer rim. To sharpen the toothed rim I use a Dremel and a cut off wheel. You can't apply much side pressure on the cutoff wheels so be very light. Match the angle of the cutters and just touch them up until the whole edge shines.

You can sharpen the center spur using the same Dremel cut off wheel. Do all 4 sides but try not to touch the center point. You want it to stay centered. Just try to gently touch all 4 sides.



If you have bits that have a smooth outer rim use the Dremel and abrasive stone. I use one of the cone shaped ones but I've tried lots of different ones and they all seem to work.

The last thing to do is to get rid of the burr's left on the outside. I use a diamond hone to remove the burr from the outside. Just lay it flat on the outside bevel and rub until it's smooth.



Once I did this which only took about 5 minutes my drill bit ate that Bradford Pear for lunch. It worked so well I sharpened the entire set which only took about an hour.