

Key Notes on Sharpening Woodcarving Gouges



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The 8 Features of a Correctly Sharpened Gouge

Unless you have a good reason for doing otherwise, aim for:

The Cutting Edge:

1	Corners	Keep these. Each is like the point of a knife, to be used in somewhat similar manner in the 'high angle grip'.
2	Corner to corner: a straight line	The edge shouldn't be wavy, stick out in the middle ('nose'), or protrude at the corners ('winged').
3	Edge 90° to blade	The exception is the skew chisel
4	Sharp!	The tool should leave a polished facet without scratches: a cut you can leave as a finished surface.

Outside bevel:

5	A cutting angle of 15-20°	Low! (For better control). To find this cutting angle—literally, that at which the tool cuts the wood: Place your gouge hollow upwards on a clean flat piece of wood. Slowly move the gouge forward while raising the handle. When the cutting edge nicks the wood, this is the cutting angle.
6	Flat	From heel to edge: not rounded or hollow, and no secondary (micro) bevel. Slight roundness is fine so long as you maintain the low cutting angle
7	Softened heel	The cutting edge scoops through the wood by rocking on the heel. <i>Slightly</i> rounding or softening here prevents heel scratches and eases the cut.

Inside bevel:

8	Short: 5-10°	The inside bevel can be 'softened' and merge with the blade. The reasons for having an inside bevel are given on page 4.
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The 2 Guides to Sharpening

When you sharpen, you are removing metal—and that's all you are doing. The trick is to remove it 'just so'!

As you proceed, there are 2 guides that will tell you exactly how things are going, where you need to leave metal for the moment and where more needs to be taken off:

1	White 'line of light'	You'll see this by looking at the very end of the gouge for reflected light, as if you are checking the sweep. As the tool gets sharper, so this line thins. <i>The knack is to reduce the white line gradually and evenly while keeping the bevel flat and at the correct cutting angle.</i>
2	Bevel Scratches	Different types of stone or wheel have individual cutting properties and abrade or scratch the bevel metal in different ways. You can look at these scratches and see how you have been what you have been presenting the gouge. <i>Concentrate on setting the outside (and inside) bevels correctly and as you finish you will find the sharpness of the cutting edge will take care of itself.</i>

3 S's: Shaping, Sharpening and Shtropping

Think of the sharpening process in 3 stages:

- **Shaping:** form the edge, the inside and outside bevels using coarse stones (grinding, benchstones and slipstones); and arriving at a very thin white line. Coarse is quicker, and from here you pass to:
- **Sharpening:** finishing off to the final edge with fine stones (such as translucent Arkansas) so that it leaves a smooth, clean cut on some practise wood. Then:
- **Stropping:** to consolidate the edge and slick up the bevel.

▪ The Inside Bevel

An inside bevel adds a very special configuration to carving gouges, altering the whole 'feel' and performance of these tools to great advantage. It's true: some carvers produce excellent carvings without this inside bevel; so make your own mind up by carving with two similar gouges, one with and one without the inner bevel, experiment and compare how they feel.

Reasons for an inside bevel:

1. You can cut more easily with the gouge 'upside down'. Without the inside bevel, the cutting edge tends to 'jig' on the flat inner face and bury itself into the wood, rather than rising out by pivoting on the inner heel.
2. The inside bevel throws the cutting edge to the middle of the metal, thus 'buttressing' and strengthening the edge by increasing the combined, overall bevel angle.
3. This in turn allows a lower cutting angle since the outer bevel can be longer
4. An inner bevel eases the shaving up and out of the channel in deep and U-shaped gouges.

Guidelines:

1. Make the angle for the inner bevel quite low, 5-10°.
2. Add the inner bevel early when you 'commission' your carving tool (before dealing with the outer bevel).
3. The *flatter* the gouge (ie. the lower the number) and the more it will be used upside down, the *longer* the inner bevel. The deeper the gouge, the shorter and sharper. V tools and bent gouges need very little, if any inner bevel
4. Be brave. I've seen the length of inner bevels up to 1/4 that of the outer. Any inside bevel will help you use the tool upside down—experiment a little and try increasing it!

Stages in Sharpening a Gouge

Coarse = Carborundum
 Fine = Translucent Arkansas

Stage	Equipment	Notes
1 Square the edge	Grinder or Coarse benchstone	
2 Polish the edge	Fine benchstone	
3 Set inside bevel	Coarse slipstone or Grinder with profile	Short 5-10°
4 Set outside bevel	Grinder or Coarse benchstone	Low cutting angle 15-20° Flat, single bevel
5 Sharpen inside bevel	Fine slipstone	
6 Sharpen outside bevel	Fine benchstone	