

Woodcut Tools

The Long Bevelled Negative Rake Scaper

Introduction

The term 'negative rake scaper' describes a scaper that has been ground with bevels on both sides of the tool. By having two bevels the cutting edge is angled downwards (a negative rake) when presented to the wood.

Used in a more traditional manner with the tool laid flat and horizontal on the tool rest the cutting edge is presented at a negative rake. This is a less aggressive angle to take wood off compared to a traditional scaper grind and will, therefore, cut cleaner and place less force on the timber, minimizing the chance of a catch.

Sheer Scraping

Sheer scraping is a technique used for finishing cuts on woodturnings, whether it is on bowls, boxes or spindle turnings.

NB A word of warning: some guidance with this technique is advised before trying it on your own.

There are two methods to present the tool's cutting edge for sheer scraping:
1/ With the tool laid flat on the tool rest, drop the end of the handle so the tool is angled upwards at approx 45 Degrees. (see pic)



With the lathe going take gentle cuts. If the tool is sharp you should notice fluffy shavings coming off the wood. Best results will be achieved when working with the grain.

2/ Hold the NRS in a similar way to method 1 but you will also need to lift the right edge up off the tool rest so the NRS is resting only on the left hand edge. Using the bottom half of the cutting edge ONLY cut lightly with a smooth action. (see pic)



Once again, cut with the grain and you should notice fine shavings coming off the wood.

Other Advantages of Woodcut Tool NRS

- The Woodcut NRS is made from a solid section of steel which will minimize the chance of tool chatter.
- The shaping of the two bevels at 25 degrees on both sides provides a very keen edge and while it will need more regular sharpening it does cut very cleanly.
- The Woodcut NRS has a grind shape that incorporates both a straight and a curved edge adding to its versatility.
- The Woodcut NRS is reversible. In other words it can be used with either side of the tool flat on the tool rest which in effect gives you two scrapers in one. A traditional scraper can only be used with one side flat on the tool rest and this provides limitations to the shape of the cut it can achieve. Because the Woodcut NRS can be used both sides up, coupled with the asymmetrical shape it is a far more versatile tool.
- The Woodcut NRS has a grind shape that incorporates both a straight and a curved edge adding to its versatility. When scraping, it is generally accepted that a straight scraper be used on convex shapes (the outside of a bowl for instance) and a curved one on any concave shapes (the inside of a bowl).

Sharpening Your Woodcut Tool NRS

Your Woodcut NRS comes ready to use so the idea is to maintain the initial grind rather than reshape it.

Sharpen your Woodcut NRS using two methods: using a bench grinder (sparingly) and a diamond honing paddle.

Bench Grinder:

It is important when sharpening this tool on a bench grinder to have a good tool rest that can be set at the correct angle. This is achieved by laying the tool flat on the tool rest (leave the bench grinder off) with the angle of tool rest adjusted so the bevel of the scraper is rubbing on the wheel (see pic).

Turn the grinder on and, using minimal pressure and keeping the scraper flat on the tool rest rotate the tool so that the section of the edge being sharpened (i.e. in contact with the wheel) is perpendicular to the rotation of the wheel (see pics).

To do this effectively the tool will need to be rotated through approx 180 degrees so make sure there are no obstructions that will limit this movement

Honing with a Diamond Paddle

The trick to honing with a diamond paddle it is to ensure the tool is braced well with the edge to be honed presented at a suitable angle to be sharpened. I use a combination of the lathe bed and tool rest to do this (see pic).



With the hollow grind off a grinding wheel it should be quite easy to see where, on the bevel, you are honing and the slight adjustments needed to rub the paddle on both the front and back of the bevel at the same time. Honing is completed when the cutting edge has a shinier

appearance to it than the rest of the (un-honed) bevel. Hone both sides of the scraper. A good pair of magnifying glasses is helpful in this situation.

