

Product Review

Sorby Turnmaster

by Kurt Hertzog

The woodturning field has many replaceable cutter tools already in the marketplace—Sorby's version is called the Turnmaster. I had a chance to test the Turnmaster and following are my impressions. The tool is available as a traditional Sorby-handled tool with the cutter already installed, so the Turnmaster is ready to go right out of the box. Another option is to buy the Turnmaster shank and head only, so if you have your own handle, this will work nicely. If not, you can marry the Turnmaster shank and head with the Sorby Sovereign System handle. The Sovereign System handle has the proper inserts to accept several shaft diameters and will make a nice handle for the Turnmaster shank and head.

In contrast to other replaceable cutter head tools, the Turnmaster is a scraping tool. It has a family of round, square, and diamond point cutters, plus there are another seven cutters available for the various undercuts and inside surface cuts. With the basic three cutters (round, square, and diamond) available in carbide, high-speed steel, and titanium nitride (TiN) high-speed steel, they have the bases covered from the scraping aspect.

The concept of the replaceable cutter head is to make sharpening unnecessary if you throw away the head when all surfaces are dull. However, most people want to get more life from the cutters, so Sorby cutters have a cutter holder to allow for easy sharpening on a grinding wheel. The carbide cutters can be touched up with a diamond hone to extend their life.

The Sorby Turnmaster is designed to lie flat on the tool rest, so it has a flat bottom ground onto the tool shaft to keep things flat to the rest. The tool itself does the rotating. Used with the tool holder in the horizontal position, the Turnmaster works as the traditional scraper, which is presented to the work flat. The Turnmaster head has locked positions at flat, 45° clockwise, and 45° counterclockwise. When the lock ring is loosened and the head rotated to either of the 45° positions, it becomes a sheer scraper. With the selection of cutter and selection of angle, you can perform just about any scraping function that suits you.

The Sorby Turnmaster is well built. Either the Sovereign handle on the raw tool or the traditional Sorby handle on the complete tool works exactly as expected. The cutter designs allow for bowl and spindle work, as well



Fig. 1
The Turnmaster is available as the standard Sorby-handled tool, or as a shank and head only that you can handle yourself or mate with the Sovereign System handle.



Fig. 2
The square, diamond, and round cutters are available as high-speed steel, TiN high-speed steel, or carbide. The others in the cutter family are only available as high-speed steel and TiN high-speed steel.



Fig. 3
All the cutter tools that are available fit into the head and are fastened with a Torx head screw. The position of the various cutters allows for them to be used with support underneath the majority of the cutter.



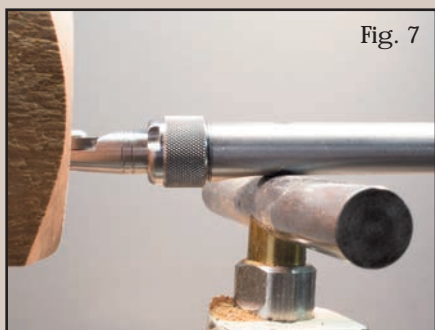
There is a cutter holder allowing for sharpening of the cutters on a grinder. The life of the replaceable cutter can be extended for additional economy.



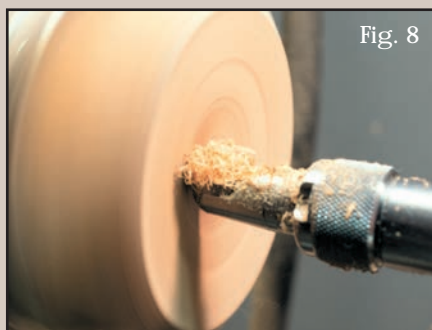
The carbide cutters can have their life extended for a period of time by touching up with a diamond hone. They have a finite life, but it can be extended with continued care.



Shown with the lock ring unfastened, the three different positions available to the user are flat, 45° left, and 45° right. Once positioned, the lock ring secures the head.



Because of the lock ring design and the flat on the shaft limitations, the tool needs to be extended over the rest at a minimum of 2-1/2". The long handles help with control of the overhang.



Whether inside or outside, the tool is used as a standard scraper. The mass of the tool helps dampen any vibrations and is easy to handle.



As expected, the end-grain scraping with the cutter in the flat position leaves a certain amount of torn-out grain. This is not unlike any other scraper used in this manner.



The cutter is rotated 45° left and then the tool is used as a shear scraper. It creates much finer shavings and cleans up the torn-grain area.



The inner ring where the shear scraping took place gets the torn-out grain cleaned up in contrast to the outer diameter that was flat scraped only.



Whether creating a tenon for a chuck mounting or scraping the outer diameter, the flat scraper really doesn't work well with the grain in this piece.



Fig. 13
 Rotating the cutter 45° and performing a shear scraping produces far better results. The very fine curls are indicating that the surface will be in excellent shape.



Fig. 14
 The diameter that is in the center where the shear scraping took place exhibits excellent surface finish. Though sanding could improve it, there is no evidence of any tearout to deal with.



Fig. 15
 The rotation of the heads is quick and easy. The changing of the cutters is not as quick. You might want to consider buying additional heads to keep different cutters in for speed of change.

as hollowing boxes, creating tenons, shaping inside and outside features, and more. The different cutters nest nicely on the Turnmaster shank, and the Torx head cutter fastening screw locks positively and easily using the provided wrench.

The length of the handle is important. The Sorby wooden-handled tool measures over 20" and the Sovereign-handled tool measures over 24". These lengths give the necessary control with the tool overhanging the rest as needed. Because of the indexing lock ring and the flattened portion of the tool shaft, the

tool needs to overhang the tool rest by a minimum of 2-1/2". With a shaft diameter of nearly 3/4" and the 18" to 22" behind the rest, control is easy and vibration is nil.

All things considered, it is a well-constructed tool with an interesting design that works exactly as you would expect. I enjoyed using the tool and found it to be a welcome addition with the capabilities that it brings to the party. The Turnmaster tool in the various offerings is available at your local Sorby retailer. For more information and some excellent videos, visit www.robert-sorby.co.uk.

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