The New Articulating Head Munro Hollower

by Lyn J. Mangiameli

Well, let's get the bottom line out of the way, and then work backward from there. I love this new hollowing tool. I've tried out almost every cutting hollowing tool since first falling in love with the Woodcut Proformes, but though many were good, none seemed to measure up to the level of performance I obtained from the Woodcut tools. Well, in my hands, the new Munro Hollower matches the Proforme in overall performance, is better in a few areas, and only slightly worse in others.

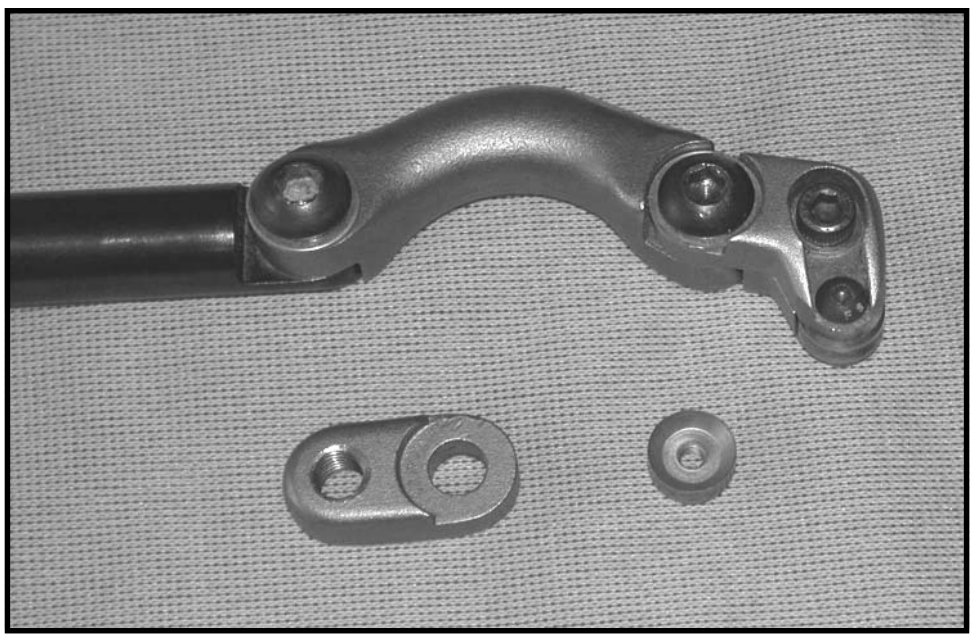
The new Munro Hollower looks much like one would expect a proper specialized deep hollowing tool to look. The tool comes across as both "cool" and serious in appearance. The cast stainless steel articulating arms appear suitably heavy for the task, and give a finished look to the tool. The head is faintly reminiscent of some other guarded cutting tools, though on closer examination, the Teknatool designed cutting cup may seem a bit unusual to those expecting a more traditional ring or hook. The guard is well integrated into the stainless steel head. The handle appears of sufficient diameter and length, and has a soft greenish colored gripping surface.

Although the tool has a solid appearance, it is not without a few peculiarities and in a couple of places the design decisions are questionable. Starting at the tip, the round cup cutter is solid, easily sharpened (I like to use a vertical belt sander with 9-20 micron belts) and offers the ability to take a cut from multiple horizontal orientations of the shaft. Like most ring and cup tools, it allows only one arcing cut to be made, though the width and depth of that cut can vary somewhat depending on the position of the hood. In contrast, the Woodcut Proforme with its J shaped cutter offers a little more choice of the shape of the cutting pattern by positioning the cut more along the flat side of the blade. There are advantages and disadvantages to this. In experienced hands, the Proforme blade offers slightly more versatility, but for a user newer to hollowing tools, the Munro is likely to offer a more consistent cut, irrespective of the horizontal orientation of the tool to the wood. It is nice that the tool comes with extra cutters as part of the package, and that a well thought out sharpening post is included. Interestingly, Woodcut is now manufacturing their own version of a cup cutter, which reportedly will fit the Munro as well.

The cutter can be used totally exposed, but normally the cutter is covered by a stainless steel hood, which adjusts easily by loosening a hex socket bolt. This bolt, as well as the other bolts for the cutter, the head and the arms are all located on the underside of the assembly, keeping them cleaner and not prone to the packed shavings that so often accumulate in the sockets of upward facing Allen head bolts.

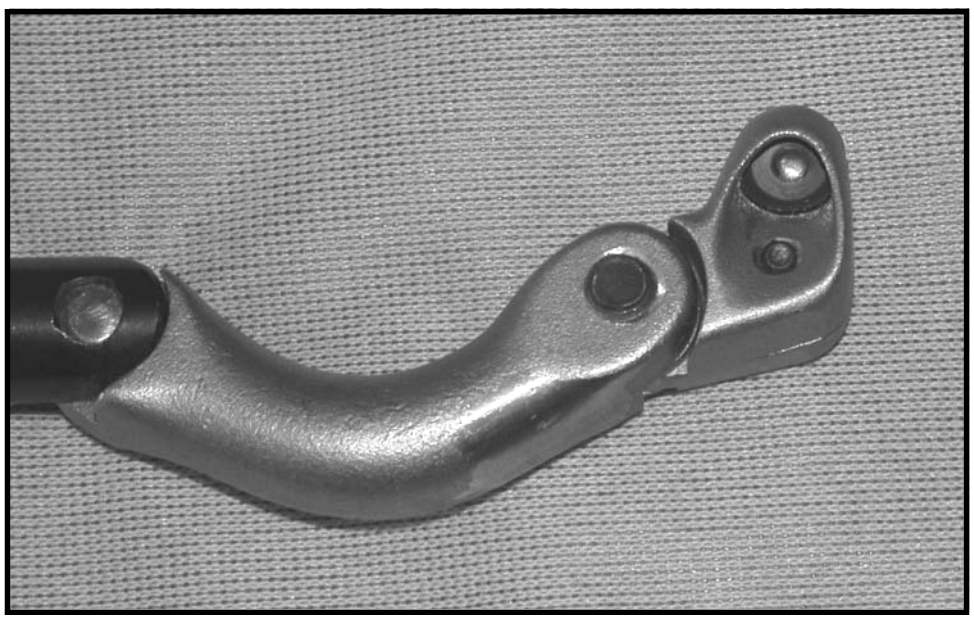
There is a choice of two arms, one very short-one longer, that are nicely finished and seem to be quite sturdy. Unfortunately, when the head or the head/arm assembly is fitted to its shaft, the overall contours are greater than the 5/8 (16 mm) shaft diameter. My preference would be to have the head and arm no larger than the shaft (which is how it is on the Proforme, the new Woodcut cup cutter, and even Munro's earlier fixed head versions). I don't think one will be able to get by with less than a 7/8 of an inch opening to accommodate the head assembly, and realistically one will require a mouth over an inch in diameter. Why be forced to use a mouth any larger than necessary, given the shaft size? In contrast, tools like the Proforme, Jordan and Kelton Hollowers can be introduced through a hole no larger than that required to clear the shaft.

The Munro Hollower looks as the Author would expect a proper specialized deep hollowing tool to look.



Close up of the business end of the Monro Hollower, bottom view.

This view shows the business end of the Monro Hollower in the position for cutting. the stainless steel hood has been removed.



This photo shows the business end of the tool in proper orientation for cutting and with the stainless steel hood in place.

There is a choice of two arms, one very short-one longer, that are nicely finished and seem to be quite sturdy. Shown here with the shorter arm installed.

The articulating head and arms are obviously the big selling point of this tool over Rolly's earlier versions that utilized three different shafts (one straight, two of different bends) with integral heads. That the new version allows the choice of using the head alone, or mounted to either its short or long articulating arm, greatly enhances the possibilities for positioning the tool within a form. However, this comes at a cost. I have yet to use an articulating arm hollowing tool, and this includes the new Munro, that at some point didn't change position on me during use. In corresponding with other Munro owners, I find I am not alone in this experience. The forces, shocks, and vibrations encountered during hollowing all work against an adjustable head or arm staying fixed in place. Tightening very hard on the locking screws helps somewhat, but at the expense of making any deliberate loosening for position changes considerably more difficult. Whether the utility of the considerable positioning possibilities outweighs the problems of unanticipated movement will likely be weighed differently by each turner. Over extended use, the Munro has been proven much better in this respect than other adjustable head tools I have used, and for the first time, I have an articulating tool that for me has displayed greater advantages than disadvantages.

Theoretically, one can also mount other types of cutting heads and scrapers to the Munro arms and shaft, though Munro doesn't offer any at present (he eventually hopes to). Fortunately, the heavy duty scraper tips (round, symmetrical teardrop and square) that come with the Crown Interchangeable Tip Scraping Tool fit perfectly on the short articulating arm if you use a few washers as spacers. These tips come with the Crown scraper but can also be purchased separately from places like Woodworkers Warehouse.

Before leaving the front end, I want to comment on one thing that is irksome. Munro may have selected the optimal bolt for each purpose and space available, but that decision has resulted in the need to have three separate Allen wrenches (M4, M5, M8) to turn the cutter, set the guard and position the arms. Munro provides inexpensive "L" wrenches of each size,

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but trying to keep track of one wrench while turning is sometimes difficult, while keeping track of three is just asking for one or more to be unavailable right when you need it. Quality T handle "Allen" wrenches will make the adjustments easier and be less prone to loss.

Rolly uses a standard 5/8 inch (16mm) shaft. For all the world it looks like the same black finished steel that both Woodcut and Kelton use for many of their shafts. The shaft is reasonably sturdy for small to medium hollow forms, but Munro makes it of a length that exceeds its ability to remain stable on some cuts when fully overhanging a tool rest. For heavier cuts or on dense dry wood, functionally most of the cutting hollowing tools have about the same effective length before chatter will set in (because almost all are 5/8 inch in diameter), but for easier or lighter cuts, the added length of the longer Munro shaft is nice compared to the relatively short Proforme or Crown Beaver. However, mounted in closed socket handles where the shaft can only be inserted approximately 1.5 inches (such as the Jamieson and the Stewart style Armbraces) the length makes for a too flexible and awkwardly long shaft, whereas the length of the Proforme is just about right.

It would be nice if Munro would offer an optional heavy duty 3/4 inch shaft to which the arms and head could be mounted for deeper hollowing of vases and the like. At the 1 inch diameter level, you can use the Woodcut deep bore handle, which fits the Munro perfectly, and will allow for quite deep hollowing by serving as a thicker sheaf for the Munro shaft, as well as adding length and weight (it easily can be filled with lead shot) of its own. The downside of this larger diameter shaft/handle is that it also requires a larger diameter mouth than is sometimes desirable.

The shaft is uniformly round. This is actually somewhat problematic for a tool held in a metal handle by a screw. The screw (s) will crater the shaft and then make it difficult to fit in close tolerance handles. This will require constant touch ups with a file to remove. Rolly says that the stud of the adjustment knob on his handle has a dressed end on it and is of softer metal than the shaft, thus reducing cratering, but this does nothing to reduce the problem when other handles are used, such as longer or torsionally stabilized ones. A better approach would be to make a long narrow flat on one side of the shaft. Woodcut now does this, and so do some of the Kelton tools.

The other problem with those shaft craters will come when fitting the shaft into the Munro handle. The handle is made of light weight aluminum. Shaft craters are going to cut and gall on the inside of the soft aluminum, leading to problems. Rolly has taken a somewhat different approach to tightening the shaft in place, using a large phenolic plastic ball on the end of a bolt, rather than the usual set screw that requires a wrench. This appears to be an effective means to avoid having to chase around for an Allen wrench (and almost makes up for the three wrenches required to adjust the head), but there will likely be some debate as to whether having this big round knob project from the side of the handle is a positive or a negative. I've tended to find it to be a positive, allowing a reference point and another small hand hold. I haven't found the knob to interfere in any way. The clear downside is that it offers only a single fixing screw, as opposed to the double set screws found on most metal handles. I have found the shaft will sometimes shift in the handle under strong rotational forces (another reason why a flat on the shaft would have been advantageous).

The handle itself is of a good length (19.5 inch) and diameter (approximately 1.25 inches), but Munro has deliberately designed it to be very light in weight. This runs counter to tradition, where deep hollowing tools have had heavy as well as long shanks to help counterbalance the fulcrum forces from long extensions over the tool rest. It also does little to nothing to help absorb the shocks and low to medium frequency vibrations so common to deep hollowing, though the handle's EVA outer covering will help block low intensity high frequency vibrations from reaching your hands. I wonder how well this sleeve will hold up to the minor gouges and abrasions turning tools are often subject to, but after a few months use it has held up fine. Now I have heard that a few have touted the handle's light weight as a feature, saying it allows for better feedback from the cutting edge. I find this hard to accept as an advantage. Another aspect of the handle is that is it bored for the 5/8 inch size for only a short distance before opening up to a much larger bore for the extent of the handle. An aluminum plug is fitted to the far end. I drove out the plug, fitted an internal plug as deep inward as the shaft might maximally be located in use, and then filled the back end with lead bird shot prior to replacing the plug. The shaft now has some additional vibration absorption, but the weight is still far less than most handles. I really like the easy extension adjustment and shaft interchange made possible by the ball knob, and I like the tactile feel of the EVA sleeve, but I regularly wish for a heavier handle (Kelton, Oneway, Woodcut, Jordan, Exocet, and Hamlet all offer heavier handles that will fit).

The Munro Hollower comes with more extensive instructions than most hollowing tools, with a manual running to 13 pages. It is not that the tool requires more instructions, it is just that Rolly has tried to provide as much information, both via text and illustration, as possible. He spends two pages explaining both how to hone and how to grind the cutter, and another page just on how to make depth gauge adjustments. This is good information, the latter of which he repeats in several other sections of the instructions to good effect. He also devotes several pages to troubleshooting. Though inexpensively created using simple computer programs, these are the best instructions I have received with a hollowing tool. My hat's off to Rolly for making the effort to help new users most effectively and quickly master his tool.

I've come to like the tool immensely, and it has become a favorite of mine. It can be adjusted to be aggressive, removing considerable quantities of wood in a short while, nearly as much as the Proforme is capable of. When set finer, it leaves a very good cut with minimal tear out. Clogging can occur and be difficult to clear by hand, but it clogs less so than the earlier version and less than most cutting hollowing tools (in my hands, the Proforme clogs the least, which is virtually not at all). Much of the time the clogs can be cleared by continuing to apply the tool to the wood, but fine control is lost at those times. For the rare serious clog, either remove the guard or clean out the head assembly with a small awl.

The tool can be used effectively both on the inside and outside of turnings, but even when stopped down, I think most will find it pretty aggressive for use for any type of external finishing. Rolly suggests that fine adjustment of the depth gauge/blade guard and using more of a shearing angle will reduce this aggressiveness. Another problem with external work is that the head is asymmetrical and thus one is limited in the directions from which the work can be approached; the head or head/arm assembly will also require more overhang off the tool rest than is necessary with a traditional gouge.

When hollowing, the tool requires and responds to the same procedures and techniques that one would use with other cutting hollowing tools. Using the minimal shaft extension possible (with the remainder contained within the handle) is a good idea with its medium diameter shaft, yet I must confess one of the things I like about this tool is that it is capable of reaching in so much farther than the Proforme. Gated and Pin rests are particularly helpful to control the cutting tip when it is set for an aggressive or deep cut. When the guard is set to a wider gap, it also will be wise to turn the lathe speed to low rpm, (350 or lower) while higher speeds are quite acceptable when the gap is slight.

One is not going to be able to use the new Munro Hollower if you wish to work with very small mouths (under 1 inch) and I prefer the Proform, Jordan or Kelton Hollowers (or even Rolly's original fixed head tools) to first open up a hollow form. At such times it is just so nice to snake in the narrow heads found on those tools, while in comparison the Munro is bulkier and more difficult to orient, even when only the head is mounted to the Munro shaft. However, the new Munro really shines once the form is opened up, and undercuts and side cuts become the principle purpose of the hollowing tool. For undercuts, a tool also must be able to be manipulated so that the cutting edge can be brought back around under the neck and then out along the form. How tightly that turn back must be is determined by the shape of the shaft and the orientation of the cutter; how far the tool extends in from the mouth is determined by the size and shape of the form, and the length of the shaft. The Munro is great at adapting to the turner's needs, you can angle the head alone on the main shaft, manipulate the head on a short arm, or manipulate the head on a long arm. This makes for a very wide range of potential shapes, allowing one to reach into a very wide variety of potential spaces.

This brings us back to mouth size again. Though the Proforme family of shafts will be able to enter through a much smaller mouth, this doesn't always mean you will be able to completely hollow a form through that same size mouth. Consider that even though the Munro Hollower head/arm assembly requires a considerably larger diameter to enter a form, on more rounded and deeply undercut forms, the Munro will often be capable of articulating its head into a greater number of effective and tighter shapes than the Proforme Swan neck will allow (though sometimes at the expense of getting the cutting tip off axis and thus generating rotational force). Thus to get into the same spaces, the Proforme might well require a larger mouth to allow for the shaft angulations required. Accordingly, one can see that mouth size is not just a matter of what size tool can pass through it.

I recently completed a 19 inch deep vase with a 1 inch mouth in order to compare the new Munro Hollower directly against several of its competitors. In my hands, I found I could most easily achieve a good cut with the Proforme, followed by the Munro, followed by the Crown Beaver, then the Hamlet Big Brother, and finally the Exocet Super. I could obtain the most aggressive but controllable cut with the Proforme, followed by the Munro, followed by the Big Brother, followed by the Beaver and again the Exocet Super came up the rear. I found I could obtain the finest cut with the Munro, followed by the Proforme, followed by the Beaver, followed by the Exocet followed by the Big Brother. I could achieve the smoothest flattest surface with the Proforme, followed by the Munro, followed by the Beaver, followed by the Exocet, followed by the Big Brother. When it came to a single tool being able to most effectively hollow into the widest variety of contours, I found the Munro came in first, followed by the Big Brother, followed by the Proforme, followed by the Beaver, then the Exocet. Now such rankings must be viewed very cautiously, as they are with respect to just one style of form, not all hollowing tools are included, and they are only the experiences of one turner. Still, I think they can give some idea of how the Munro clearly is a tool worthy of consideration if you are considering the purchase of a hollowing tool.

At this point in time, my personal recommendations for the optimal minimal set of hollowing tools to make medium small, to medium hollow forms of semi-dry or green wood is:

1. The canted shaft Woodcut Proforme for small mouths, initial opening up of hollow forms, and finish internal cuts on larger mouthed hollow forms.

2. The Articulated Munro Hollower for deeper forms, as a swan necked com-

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Sharpening Tools

by Fred Holder

A fellow recently asked if one could mount a grinding wheel on the lathe for grinding their tools. He didn't have room for a grinder.

In the early days, woodturners often mounted a grinding wheel on the lathe spindle to sharpen their tools. Bill Jones, an 80 year old hardwood and Ivory turner in England, has seven lathes in his little shed shop in the back yard. The lathes serve as grinder, table saw, drill press, etc. He has no other machines in his shop.

When I first retired and was going to craft fairs a lot and demonstrating on a lathe, I had a grinding wheel set up so that I could use it on my lathe to sharpen when away from the shop. It worked very well, the tool rest made a fine tool rest for grinding too. This is described in the article on sharpening at my web site: <http://www.fholder.com/Woodturning/article3.htm>.

Recently, a lady turner reported to me on the set up on her Mercury Lathe. She mounted the grinding wheel on the outboard end of the spindle and also mounted the slide for a Wolverine Grinding Jig below it so that she could use her grinding jig accessories while at a craft fair.

The Woodcut Tru-Grind system could also be used in this manner. The base slide could be mounted below the grinding wheel on the outboard end of the lathe. Incidentally, this grinding jig was selling very well at the various venues that we visited in New Zealand. Quite a number of New Zealand turners are adopting the Tru-Grind System to give them better grinding than they could do free hand.

I believe that the Tru-Grind base could be mounted to a board that could be clamped to the lathe bed if the grinding wheel is to be mounted on the lathe spindle and the grinding would be done over the bed of the lathe.

One note, always clean away the grinding grit before operating the lathe again for woodturning. That stuff can cause things to wear quickly.

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pliment to the straighter (canted shaft) Proforme to use for undercuts and widely rounded forms.

3. The 1/2 inch Kelton Hollowers and/or Jordon 1/2 inch swan neck for making the most difficult cuts directly inside small mouthed forms, and to cover all undercuts for those smaller forms where the Munro head is too large.

If one is scaling down in size, drop the Munro and perhaps add the 5/16 inch Keltons; if one is scaling up in sized, drop the Proforme and replace the 1/2 inch Keltons with 5/8 or 3/4 inch Kelton Hollowers or the Jordan 3/4 inch swan neck; for very deep work (like deep vases), add the Woodcut Deep Bore handle to use with both the Proforme and the Munro. For all, use with a gated or pin tool rest.

Again, the New Munro Hollower is an excellent hollowing tool. No single tool can handle all the tasks required when making a variety of hollow forms, but this one will ably perform a greater range of tasks than any of the other cutting hollowing tools. If one can afford it, it will be a great first hollowing tool. I'm certainly not giving up my Proformes (or the Kelton and Jordan Hollowers), but I am now regularly complimenting their function with the Munro. I hope we will see the components available separately, as Rolly has done in the past, and also see new options become available, such as thicker shafts. I also think the general design could be downsized, and I'd love to see a 7/16 or 1/2 inch shaft version of the tool as well. No hollowing tool is perfect, but in my hands this one does a whole lot more right than most.

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