



Journal Of
The North Carolina Woodturners' Association

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52 M. P. H. AND STILL CAVITATING!

My knuckles were white on my left hand as I gripped the steering wheel as if trying to crush it. My right hand trembled as I slowly eased back on the "dead-man" throttle, the wind whipping away the cold sweat that would have otherwise wetted my face. That was four miles per hour faster than my 200 pound, Willis Comet C-Service Racing Runabout had ever gone, and the propeller was still cavitating. That means that it was still sucking air, trying to get a grip on the water. Going that fast in a boat that light is more than just a thrill; it's frightening! If it had ever really grabbed the water, it might have done something that would have gotten my name in print, both in the newspapers and on a grave marker.

I had always lived around the water and loved boats, particularly fast ones. The faster they went, the better I liked them. But I was not yet interested in flying, and that is what I thought I was about to do. My boyish sense of daring gave way to my small but ever-growing sense of reality, and the pursuit of an ultimate thrill was put on hold and I headed back to the shore. What had I done to turn a rather fast racing boat into a super fast one?

This rather dramatic improvement in performance had resulted from some tips that I had gotten from a friend who had spent many years racing big, super powerful hydroplanes. The first thing was to completely sand the plywood hull, down through a series of grits to 1000 grit, applying a sanding sealer between each grit, filling in and smoothing out all dents and scratches. This was followed by three coats of Smith's Yacht White Hard Racing finish, a final sanding with 1000 grit and a thorough rubbing down with crocus cloth. Finally two applications of Blue Coral automobile body polish (The kind that only rich people used on their Cadillacs) produced a finish that would shed water like a hot skillet! After that, I had gone to work on the lower unit of the engine with files and emery cloth, shaping the leading edge to an almost razor sharpness. The same was done to the propeller, leaving a high polish and no dents or scratches. The Blue Coral was applied here too. All this left me with a boat that almost hated to touch water, as evidenced by the results. This boat (in the hands of another driver) won the Florida Gold Coast Marathon, a 125 mile coastal race.

Now what the heck has all this got to do with woodturning? Nothing directly, but if you think enough of your health to have purchased a dust collector, it might give you the empetus to do to yours what I did to mine that resulted in a noticable improvement in its performance.

I have one of those 1 hp. dust collectors that you see in so many wood-working catalogs, all of which look alike but have different names on them

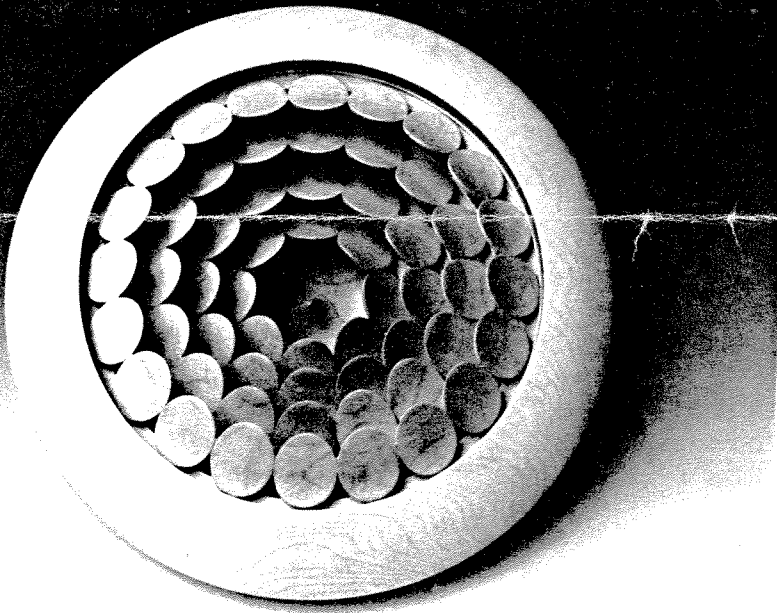
If yours is like mine, it has an impeller similar in design to the ones used in aircraft engine superchargers. The big difference is that the aircraft supercharger impellers are die-casted and are polished to a very smooth finish, while the ones used in dust collectors are usually from sand castings and are very rough. The so-called CFM (cubic feet per minute) ratings of these machines are probably arrived at mathematically, rather than from actual volume tests, and I doubt that they move all the air they are rated to move. This is because all those rough surfaces on the impeller blades are trying to hold back air while the impeller is attempting to push it away. The result is less total volume of air moved per minute.

When I first looked at the impeller in my dust collector, I remembered my racing boat experience and went to work on the impeller with files, emery cloth, and some Band-Aids for my fingers and knuckles. It was not much fun, but the results were worth it. Although what I ended up with could not be compared to that stainless steel racing propeller I had had on my boat, it was a darn sight better than before, and I could tell right away that it was moving more air than before. If the one you have looks anything like mine, you might want to give it the same treatment.

One more thing I have noticed is that the bags choke up rather quickly, especially if you are doing a lot of sanding, and the performance drops off proportionally. For this reason, I empty the bags and shake out all the dust every time I go to my shop to turn. And, although I have not used them, I would think that those throwaway plastic bags would work against you because they are not porous and would reduce total airflow. -K. B.

FLOWER VESSEL

By Dewey Garrett
Livermore, Cal.



This is the last in the series of three unique designs that Dewey Garrett has so graciously shared with us. As he is now working on some other designs, maybe we'll be able to have something else from him in a later issue of the Journal. The original information, as it was received from Dewey, will be put into a folder and made a part of our library.

The Flower Vessels extend the design and methods used for the simpler Petal Vessels. In these more complex designs, a flower-like composition is formed by combining concentric rings of petals in the interior of a bowl-like structure.

Construction of these vessels begins with preparation of plugs for the rings of petals. A plug cutter mounted in a drill press is used to make uniform, cross-grain plugs. Fifty-six plugs must be made for a design having four concentric rings comprised of 8, 12, 16, and 20 plugs. (This arrangement creates interesting visual interactions between the rows of plugs when they are properly aligned in the finished bowl.) After the plugs are prepared, they must be glued into a circle and turned to a shape that reveals the petal forms. To facilitate this process, a separate jig is used for each of the four rings. Each jig is made from a round wooden block mounted on a standard faceplate. The block is recessed around its outer circumference to a diameter that will accommodate a complete circle of plugs with each plug touching its neighbors and the inner diameter of the recess. The recess is reduced in diameter with a sharp skew chisel until a tight fit is obtained. The same jig can be used to make numerous sets of rings of a given diameter.

The plugs are glued to the jig by applying glue to the plug bottom surface and on the line of contact between adjacent plugs. After the glue is set, the jig and ring of plugs are mounted on a lathe and turned to form a ring of petals using conventional tools and a light touch. After sanding, the ring is separated by making a partial parting cut and then finishing the cut with a fine-tooth saw while the lathe is stopped.

After preparing the four rings, the bowl blank is mounted and turned to shape its outside. The inside is turned by first creating sizing cuts or steps to define the position for each of the concentric rings. These cuts are made through an iterative process until each ring will fit neatly into the recess formed by a step of the appropriate diameter. When a good fit is obtained, the steps are extended towards the bottom of the bowl to define the interior attachment heights for the rings with a spacing that provides a pleasing alignment of the concentric petals.

The material between the steps is removed using a turning gouge and a small-tipped scraping tool so that a thin annular support ring is created for the attachment of each petal ring. The bowl is then finish sanded on both inside and the outside. Finally, the rings of petals are carefully aligned and glued to the attachment rings.

Editor's Note Sounds pretty difficult, doesn't it! So are walking and talking, but we all did that by the time we were three years old.

PRESIDENT'S NOTES

Our program on January 11th. featuring Rodger Jacobs (spindle turning) and Herb Quarles (turning miniatures) was a great instructional experience. I hope that it motivates more of our members to do spindle turning. Having professionals of this quality in our organization is one of our greatest assets. Did you notice that, after winning the Superflute bowl gouge in the raffle, James Knipe carried it proudly everywhere? I even saw him carrying it out of the bathroom! We've got more good things coming. The overhead mirror was a new experience and works great if you sit in the right location. We will make adjustments to make it work better.

We have a new drum of Sealtite 60 and would appreciate your bringing us some clean 1 gallon jugs with lids, so we can have it ready for sale at each meeting.

The February meeting will feature a workshop on tool sharpening and a special slide presentation by Bill Johnston on turning deep, natural-top

hollow vases. If you've seen Bill's work, you know this will be good. I would like to urge each of you to start making your plans to attend the special program A DAY OF WOODTURNING WITH RAY KEY on March 14th. This should be a great experience for all who love woodturning! -Tony

A DAY OF WOODTURNING WITH RAY KEY

Ray Key is an internationally acclaimed woodturner, demonstrator, and lecturer. He has been turning wood for over thirty years, having begun as a patternmaker's apprentice with Chrysler. In 1977, Ray was selected to the Craft Council's Index of Craftsmen. His work can be seen in numerous galleries, exhibitions, museums, and private collections around the world. Ray is also a writer, and his book "WOODTURNING" A DESIGN NOTE BOOK has been published in the U.S. His second book, THE WOODTURNER'S WORKBOOK, will be published in 1992. In 1987, he helped to organize the Association of Woodturners of Great Britain and has been its chairman for the past five years, during which time it has grown to over 1300 members.

On Saturday, March 14th., Ray will be the featured demonstrator at a special all-day seminar sponsored by NCW. We have been planning this program since early in January and expect it to be outstanding. It will begin at 10:00 a. m. and last until Ray decides to stop. There will be a three-meat meal served on location by Bennet's Barbecue of Hickory, NC; and those of you who were here last year when we had Rude Osolnik as demonstrator will remember how excellent the food was. You may bring your spouse along at no extra charge except for the meal. There is a form enclosed for advanced reservation, and we hope you will send it in as soon as possible so we will know how many to plan for. If you are bringing another paying person with you, you do not need another form. Just include the right amount of money and add a note telling who is coming with you.

NOTICE TO THOSE WHO HAVE NOT PAID DUES FOR 1992

Because we do not want to be wasteful with your money, we cannot continue to send the Journal to those who have not paid their dues. Please note that this will be the last issue of the Journal that will be sent to you unless we receive your dues payment before March 1, 1992!

THINGS TO COME

Our April program will feature one of our new members who is an instructor at Western Carolina University. More details later. And we are planning to have our May meeting in Hendersonville, NC. More on that too in a later issue of the Journal.

NEW MEMBER BLAST!

There must have been something in the weather, the water, or the alignment of the planets, but we had a real blast of new members at the January meeting -eleven in all! We thought we'd close out this issue of the Journal with their names.

Grady Butler, Lexington
Everett Carty, Winston-Salem
Jerry Friesner, Cullowhee
Catie Hammett, Hendersonville
Charlie Harrell, Hampton, TN
Fred Kelly, Conover

Bill Monday, Naples
Paul Savory, Asheville
Kirk Symmes, Asheville
Bob Van Stee, Asheville
Tom Whitley, Kannapolis

Next meeting - February 8th!