

Tidewater Woodworkers Guild

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May 2022 Newsletter



WRITTEN BY GARY STEPHENS CATEGORY: [NEWSLETTERS](#) PUBLISHED: 17 May 2022 HITS: 1071

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Tidewater Woodworking President: Fran Foster, Vice President: Greg Guertin, Treasurer: Chris Zuchristian, Secretary: Larry Larue

Tidewater Woodworkers Guild		May 2022 I Have Too Many Tools Said No Woodworker Ever		
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<h3>What's In The Newsletter?</h3> <ul style="list-style-type: none">• Presidents Report• Log Board Foot Calculator• This Month's Meeting - Cygnus Lumber And Millworks• Guild Projects				
<h3>Presidents Report ...</h3> <p>Have you ever wondered how to proceed on a particular project or could not find an answer on the Internet for a problem that had surfaced while working in your shop? Well, our guild is a wealth of information and resources that can assist anyone that is experiencing an issue or just looking for someone who might have already resolved a similar problem. Our guild is comprised of individuals that range from experts in the field to individuals who just love to work with wood. Our dues are only \$20 per year and with this membership, a prospective member would have access to all of the expertise in the guild, learn new techniques from presentations, find others that have similar interests, and can receive a 10% discount at Woodcraft the night of the meeting which will more than lightly pay for the dues in savings. We meet the fourth Monday every month at Woodcraft starting at 7:00 PM.</p> <p>This month, we plan on meeting at Woodcraft at 6:45 and carpooling to Cygnus Lumber and Millworks in Pungo. If you are interested, please come by and join us as we have our first field trip since the pandemic started.</p> <p>franfoster1121@gmail.com</p> <p>Fran Foster President TWWWG</p> <p>Return to Top</p>				
<h3>Log Board Foot Calculator</h3> <p>During the April TWWWG meeting Paul Garrity of Garrity Custom Milling gave us his presentation of what goes into sawing a log up into slabs and things he has to consider. One of the things he passed out at the end of the presentation was the log board foot calculator he uses to give us an estimate of how many board feet a particular log will yield. The chart Paul passed out was called the Doyle Log Rule. Since the chart was probably 8 point font and these old eyes had trouble reading the table values I decided to see what was on the web and see if I could find the table in a larger font. I discovered four different log board foot calculators published over the years and their limitations. This article will help to educate you on these calculators.</p>				

Board Foot Log Rules:

These rules factor in saw kerf, wastage, knots, and shrinkage. They have their limitations due to different species of trees and lack adjustment for tree taper. They produce overrun or underrun (where lumber exceeds or comes short of the rule, respectively), they attempt to factor in wastage and limitations. You can learn the ins and outs of log measurement and scaling in the National Forest Service's National Forest Log Scaling Handbook. [National Forest Service Log Scaling Handbook](#)

Doyle Log Rule:

Edward Doyle published his first log rule book somewhere between 1825 and 1837. No know copies of Doyle's Pocket Reckoner that was published in 1825 exist today but publications that exist in 1837 include his rule.

BF = (D-4)(L/16) where:

BF = estimated yield in board feet

D = Diameter of log in inches, (inside bark) small end of the log

L = Length of log in feet

The main weakness of the Doyle rule is in its allowances for slabs and edgings. The Doyle Rule gives too much allowance for slabs & edgings in small logs. For large logs the allowance is too small.

Also, because this was before band saw mills and carbide toothed blades the kerf width used is 1/4"! Think 4 foot diameter saw blades.

Scribner Log Rule:

The Scribner Log Rule was first published in 1846 by J.M Scribner. Scribner based it on estimates off drawings of logs cut using a 1/4" kerf. His original tables ranged from 10' - 24' logs, with 12" - 44" diameter (small end, inside bark). Scribner's table was an improvement over Doyle's work. Scribner was a also a preacher who probably did not like the tables published under Doyle's name so when he published his Scribner Log rule he said:

I have spared no pains nor expense to render them perfect; and it is to be hoped that hereafter these will be preferred to the palpably erroneous tables which have hitherto been in use.

J.M. Scribner, on Publication of the Scribner Log Rule Tables.

Scribner's rule is reasonably accurate on roughly 16' logs up to a diameter around 28". Anything bigger there is generally overrun.

International Log Rules:

Judson Clark first postulated his International Log Rule in 1906 and it assumed a 1/8" saw kerf. Since saw mills at that time could not produce a 1/8" saw kerf he published a 1/4" kerf rule in 1917, hence we have the **1/4" International Log Rule** and the **1/8" International Log Rule**.

1/4" Kerf Log Rule:

The International 1/4" kerf log rule as estimated in Grosenbaugh's 1948 Improved cubic volume computation (to convert it from table to formula) is:

$$BF=0.055000LD + 0.006875LD - 0.205000LD + 0.00028645833L3 - 0.201281250L2 + 0.04666667L$$

1/8" Kerf Log Rule:

The International 1/8" kerf log rule as estimated by Grosenbaugh's 1948 *Improved cubic volume computation* (to convert it from table to formula) is:

$$BF = 0.04976191LD + 0.006220239LD - 0.1854762LD + 0.000259176L - 0.01159226L + 0.04222222L$$

If you want to use a web based log board foot calculator try [Log Board Foot Calculator](#)

For a larger font sized log board foot chart try [Large Font Log Board Foot Calculator](#)

Much of this info in this article came from [DQYDJ Log Rule Board Foot Calculator](#)

Editor

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This Month's Meeting - Cygnus Lumber And Millwork

This months meeting will be our first field trip meeting since the pandemic. For most of us that is two plus years. The meeting will be held at the shop of Greg Horvath who owns Cygnus Lumber and Millworks in Pungo, VA. For those who have never been to his shop you are in for a real treat. You will get a chance to see a shop with tools like you have never dreamed of. This is a shop on steroids!.

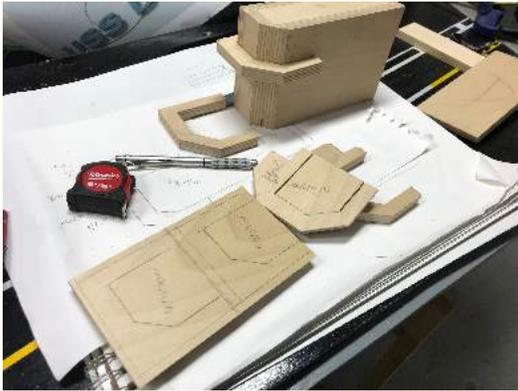
If you would like to learn more about his shop before the Monday meeting, take a look at our web page, look at the Newsletter tab and then find the June 2022 newsletter. His shop was featured in that newsletter.

Guild Projects

Our First project comes from Dan Krum and his rebuild of the USS George H.W. Bush CVN 77 Carrier model.

I recently completed a significant rehab on this model of the USS George H.W. Bush (CVN-77). My son-in-law is a supply officer on there and asked me if I could make some repairs. This model is six feet long and is used for cake cutting ceremonies. Therefore, it lacks a lot of detail. I'm not sure who made the original model but there is a lot of craftsmanship in it. The hull is hollow and made up of MDF laminations. The flight deck comes off in one piece. The model was in very poor shape. The hull was delaminating, the island/superstructure was completely missing, the flight deck markings, which were painted on, were scratched. The deck was scratched and had holes and gouges in it. The flight deck is one piece and was not attached and I could not see how it had been. There was a string of rope lights around the perimeter of the deck but no cord.

My first challenge was making the island and determining the correct scale. This took the most time. I made the island so it could be removed for transport. It has locator pegs and rare earth magnets to hold it in place.



Planning And Constructing The Carrier Island



Painting The Island



Scratch Marks On The Deck



Stripping And Repairing The Deck

Next, I started the deck. I made several attempts at repair but finally decided the best thing would be to completely strip it. I had wanted to avoid this as I did not want to re-lay out all the deck markings. In the end I sprayed a good quality primer and top paint. Using a spray gun gave a slight appearance of non-skid while maintaining a slight gloss. I used threaded inserts and brass screws to attach the flight deck to the hull. All the striping and numbers were done with pinstriping tape and vinyl sheet. I removed the rope lights and installed a color changing LED strip.



Fresh Paint Job, LED Lighting - Good For Another 50 Year Overhaul!

Our next project comes from Gary Stephens.

Some friends of ours gave me this old World War I chest to restore:

While the chest was structurally sound it was dirty, smelly, and moldy. The first challenge was the mold. A Clorox spray solution worked very well to get rid of the mold. The second challenge was very time consuming. Someone over the years had wall papered the inside of the chest! I was able to scrape the wooden slats on the outside of the chest and refinish them in their natural color. I used flat black spray paint to cover the metal portion on the outside of the chest.



Exterior View Of Restored World War I Chest

The inside was cleaned up and sprayed with a clear poly spray to protect the wood. I also rebuild the "hidden" letter / documents compartment.



A View Of The Interior Of The Chest With The Document Compartment Closed (Left) And Open (Right)

Our last project comes to us from Justin Dahlmeyer.

Justin has several projects going at the same time. He is currently finishing up two tumbling block cutting boards and fixing his CNC machine. Seems that the bearing went out and destroyed one of his projects but he still has the turtle tray and another cutting board. The cutting board is made from Walnut, Cherry and Maple. The turtle is made from Cherry with a Tung oil finish.



Justin's Cutting Board And Turtle Tray

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