IWG News

The Newsletter of the Island Woodturners Guild March 2020

About the IWG :

The Island Woodturners Guild meets from 1:00 - 4:00 PM on the 4th Saturday of each month (except for July/Aug) at the Central Saanich Senior Citizens' Centre, 1229 Clarke Road, Brentwood Bay, BC.

Visitors are welcome.

Executive Committee

President:
Tim Karpiak

Vice President:
Vik Peck

Secretary:
Michael McEwan

Treasurer:
Peter Pardee

Member at Large:
Emma Banner

Member at Large:
John Kilcoyne

Member at Large:
Virginia Lee

Past President:
Steve Werner

Newsletter Editor:
John Kilcoyne

The IWG gratefully acknowledges the support of the following companies:
Artisan Wood to Works
Chipping Away
Industrial Plastics & Paints
Island Blue Print
KMS Tools
PJ White Hardwoods
Richelieu Hardware

THE PRESIDENT'S TURN

This months President's message is one of the strangest ones I've written. The current situation in the world is causing great concern for everyone and has affected all our lives. (I guess I should have bought that tiny Island when I had the chance years ago)

As you know our meetings have been cancelled for the next few months. The executive is working at developing alternative methods of keeping our group active and connected. As I said in my email last week, we are trying to get a remote demo organized for June. Instead of meeting at the hall, the demo would be available to all members using their home computers or even cell phones. You could still have coffee and cookies, but pants would be optional!

(Interestingly, Trent Bosch recently offered to do a free remote demo for the first 100 people who signed up. While it filled up instantly, there may be similar opportunities so keep an eye out.)

While our annual general meeting is set for May, this will have to be either done remotely or postponed. The May meeting is also the time when a new Executive is elected. If you are interested, please contact a member of the current Executive.

In the meantime, I encourage everyone to get out to the shop and make something. If you're a member of the AAW, they have a plethora of videos and articles on their website that are guaranteed to motivate you to try something new. If you're not a member, check it out. I think it's well worth the cost to join.

In closing, I'd like to thank the members of the executive for thinking outside the box and striving to come up with ideas to keep us engaged.

Although the requirements for social distancing are restrictive, I encourage all of us to stay connected by any means available.

Cheers!

Tim Karpiak

MEETINGS CANCELLED

As noted in the President's Turn, the meetings in March and April have been cancelled – which will likely extend to include the May and June meetings.

As for the June meeting, the Executive is investigating whether a remote demonstration could be organized for this month which members could view by logging in on their home computer. Details will be provided as they become available.

SPRING CHALLENGE

The spring challenge is to create an **innovative hollow form**!

If we are unable to hold a June meeting – which appears likely - efforts will be made to publish the results on the website.

NEW MEMBERSHIP YEAR: SEPTEMBER - AUGUST

Since its inception, the membership year for the Guild has been June to May. This has caused considerable difficulties as members at the first meeting in September have had difficulty remembering what they did yesterday, let along 3 months previously.

Accordingly, the Executive has decided to change the membership year to run from September to August.

Note: Members will be allowed to renew their membership at the September meeting which is typically considered the "first" meeting of the year.

FEBRUARY RECAP: PIPE DREAMS

Emma Banner gave an interesting and engaging demonstration on turning a tobacco pipe.

(She found the following video by "Woodturner Ky" on YouTube provided some useful direction: https://www.youtube.com/watch?v=AVksLV3dKo4.)

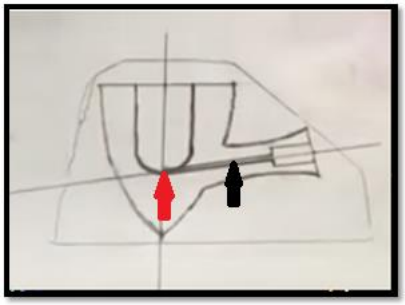
1. Material

A wide variety of hardwoods can be used to make a pipe bowl including cherry, walnut and, Emma's choice, maple.

Having said that, she noted that the ideal wood is briar burl. Harvested from briar trees in the coastal areas of the Mediterranean Sea, the wood is extremely heat resistant and can handle temperatures over 700 degrees Celsius before it will start to burn. It also has a unique ability to absorb hot moisture which means that the smoke is cooler and provides a "better" taste.

Briar bowl blanks can be obtained from many sources including Etsy ($22/5 small pieces which will likely need to be glued to a waste pieces for turning) or Woodchuckers ($22/1 larger piece).

2. Bowl Blueprint



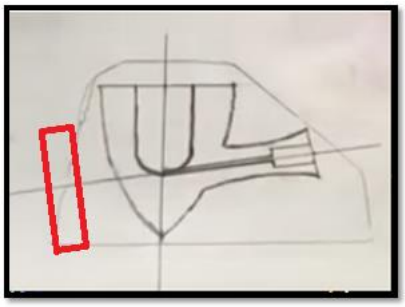
The first step is to make a scale drawing of the bowl which will fit on the blank.

Emma noted that it is critical that the draft hole (black arrow) emerge at the very bottom of the tobacco chamber (red arrow).

3. Drilling the Mortise and Draft Hole

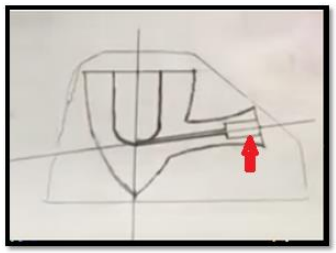
There are several ways to mount the blank for this step.

In the video noted above, Ky removes two jaws and mounts the blank loosely in the chuck. The tailstock is brought up and the top jaw and the live centre are aligned with the draft hole pencil line.



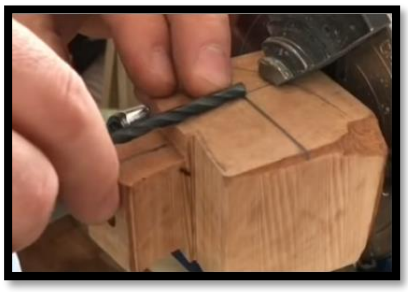
However, Emma opts for the much safer method of turning a tenon on the side opposite the stem (Left, red rectangle) which enables her to use all 4 jaws to hold the piece. (Shown by arrow in right photo)

In this case, it is still critical that the top jaw and tailstock are centred on the draft hole pencil line.



Once the blank is securely mounted, the first step is to drill a shallow 5/16” hole using a Jacob’s chuck in the tailstock that will serve as a mortise for the pipe stem (left: arrow). If the blank is only held by two jaws, the bit must be sharp and advanced slowly.

Note: To prevent the bit from wandering, you may want to first use a machinist’s drill bit to establish a centre divot.



The next step is to drill the draft hole using a 5/16” bit. The depth of the drilling should be set so that the outer wings of the flute meet the centre of the tobacco chamber (left). Given the length of this bit and its tendency to wander, using a machinist’s drill bit is highly recommended.

4. Turn the Stem Housing

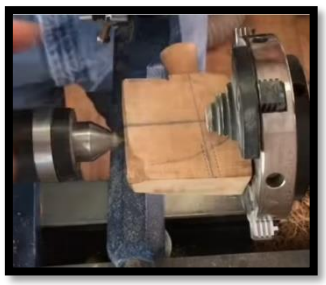
With the tailstock engaged, the stem housing is turned to its final thickness and then sanded.

5. Forming the Tobacco Chamber

The blank is then remounted in order to form the tobacco chamber.

For this orientation, Emma strongly encouraged the use of a tenon to hold the blank (left: arrow). Given the amount of wood which needs to be removed and the offset stem housing, this is a far safer option.

Once again, it is important that the top jaw and live centre in the tailstock are aligned with the centre line of the chamber.



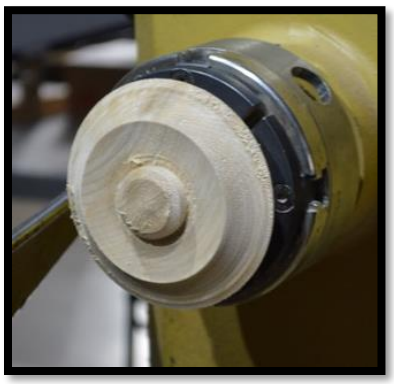
She first uses a parting tool and gouge to form a short portion of the outside diameter (left) and then hollows the bowl portion using a negative rake scraper. She continues until the draft hole is located at the bottom of the chamber.

6. Turning the Outside of the Bowl

With the blank still in the chuck, Emma begins to form the top portion of the bowl. She emphasized the importance of going slowly in order to avoid hitting the projecting stem housing.

When she gets close to it, she switches to a parting tool to continue forming the outside.

She then removes the blank from the chuck and turns a waste block with a tenon sized to the interior of the tobacco chamber.



A bead of hot melt glue is applied to the waste block to secure the blank and the tail stock is engaged to provide the proper orientation.

She then proceeds to turn the bottom of the pipe as far as possible.

7. Completing the Project

To complete the pipe, Emma uses a combination of the band saw, rasps, Dremel and burrs and a “ton of hand sanding”.

FALL CHALLENGE

The challenge of turning a sphere produced many outstanding efforts. Congratulations to all who participated.

STUPID QUESTIONS: FEBRUARY

The following are the "stupid" questions discussed at the February meeting.

1. My Jacobs (drill) chuck came with a threaded rod. What is it used for?

For tasks such as turning bottle stoppers or small knobs, sanding or buffing, some turners like to use a Jacobs chuck in the headstock. So long as the tailstock is engaged the chuck will remain firmly in the headstock. However, if the tailstock needs to be removed, there is a danger that vibration and lateral forces will cause the chuck to work loose with potentially catastrophic results. This is where a threaded rod – known as a draw bar - is required.

With a wooden washer and nut on one end of the draw bar, it is inserted into the headstock and screwed into the end of the chuck. The nut is then cinched up to hold the chuck securely in the headstock spindle.

Notes

a. Not all Jacobs chucks are threaded for a drawbar.

b. While a collet chuck will hold a small part more accurately and without marring the surface, it is considerably more expensive. (KMS: Chuck and 8 collets (1/8" to 1"): $250): (LV: Chuck and 5 collets (1/4" – 1/2"): $195)

2. Should I sand between coats of Wipe On Poly?

Assuming that you are using *Minwax Wipe On Poly*, the following are the instructions posted by the manufacturer:

Let [the first coat] dry 2-3 hours. Then lightly sand entire surface with fine sandpaper (220 grit) to ensure an even finish and proper adhesion. Remove all dust. [Repeat for subsequent coats].

Having said that, there are many on-line comments by professional finishers who disagree with these instructions.

Many of them suggest applying two coats before any sanding and only sanding subsequent coats if needed for an even finish. More importantly, virtually all the on-line sources I could find stated that 220 is far too strong a grit. It will remove far too much of the thin layer of finish that you just applied. Most recommend using nothing lower than 400 – 800 grit sandpaper.

While most of the on-line posters are furniture finishers (where adhesion is a more important requirement), none reported they had adhesion problems when following these "contrary" procedures.

Note

One member noted that if the turning has small holes or crevices, the poly will bleed out over time. To avoid this, use your air compressor to blow out before the finish cures.

3. How can we get *arrie *aptie to talk less?

A spirited discussion by many members produced a number of possibilities including duct tape, caulking compound and clamps.

However, recognizing that this task recognized herculean efforts, the consensus was that CA glue would do the best job!

The cancellation of the next few meetings means that members will be unable to have their stupid questions answered.

*In recognition of the serious mental health consequences, you are encouraged to email your "stupid questions" to the "stupid editor" who will endeavour to provide "stupid answers" (**jrk@uvic.ca**)*

TIPS ON SETTING UP A BANDSAW

The following are some tips on setting up a bandsaw.

1. Safety

ALWAYS UNPLUG THE SAW BEFORE DOING ANY WORK ON IT INCLUDING CHANGING A BLADE.

2. Co-Planer Wheels?

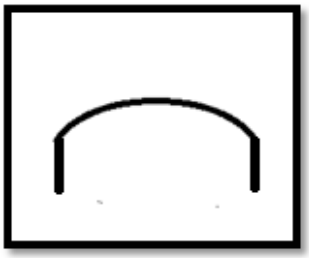
It is commonly stated that prior to setting up your bandsaw, you should ensure that the upper and lower wheels are in the same plane. Not so, says Alex Snodgrass from Carter Products. In fact, he notes that most manufacturers deliberately place their wheels offset in order to provide effective tracking. At a minimum, you should contact the manufacturer before attempting to adjust a lower wheel.

3. Positioning the Blade on the Wheel

a. Partial Tension

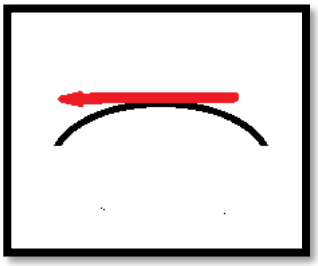
Once the blade is mounted on the wheels and ready for positioning, you should snug up the blade but do not apply full tension.

b. Blade Position



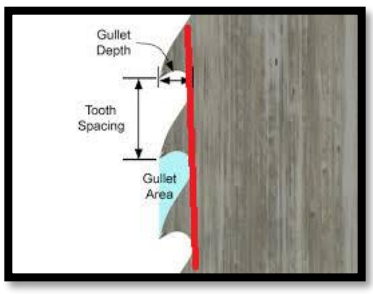
Most woodworking bandsaws have a slight crown in the centre of the wheels. The figure at left shows the outer profile in an exaggerated form. Since a blade (or belt) will always move to the largest diameter of a pulley, the crowns produce more consistent tracking.

While it is commonly stated that the **blade** should be centred in the middle of the upper wheel, Snodgrass rejects this.



If the blade is centred on the crown, this produces a pivot point and minimal support for the teeth which will produce vibration and a "wavy" cut. This is illustrated in the figure at left (which again is exaggerated for illustrative purposes).

Rather, it is the deepest part of the gullet which should be positioned at the centre of the wheel (right: red line) This will provide better support and smoother operation while still leaving clearance for the teeth. The side guides will stabilise the back of the blade to prevent "whipsawing".



Having said that, Michael Fortune, one of this country's leading furniture makers, notes that this will only be relevant for wide blades. In the case of a 3/8" blade, the difference between the centre of the blade and the deepest part of the gullet is only 1/16" which, for most of us, will not be recognizable.

Note: The location of the blade on the lower wheel is irrelevant (so long as it is wholly on the wheel).

c. Confirm Under Load

Once you have the blade in its proper location, close the covers and turn on the saw for a second. Then check that the blade is still properly centred.

4. Setting Tension

While virtually all saws have a built-in tension gauge, Snodgrass prefers to rely on a finger test.

Rather than checking tension at the table, he recommends opening the top wheel cover and checking the blade tension at the "back" of the saw.

More specifically, he recommends that you rest your finger on the guard flange and then press against the blade. (Resting your finger on the flange will make it easier to maintain a consistent pressure.)

He suggests that there should be approximately a ¼" deflection without turning the finger white.

Changing the tension can affect the position of the blade on the wheel. Accordingly, after setting the tension, re-check that the gullet is still tracking on the centre of the upper wheel.

Note

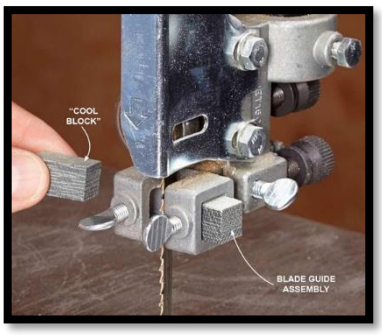
Fortune argues strongly in favour of "under-tensioning" a bandsaw blade. He does use the saw's tension-guide, but he selects "one level" lower. i.e. for a ¼" blade he sets the tension marker to the 1/8" mark, 3/8" blade at ¼" mark and so on. He does this even for re-sawing!

5. Side Guides

There are two general types of side guides: blocks and bearings.

a. Blocks

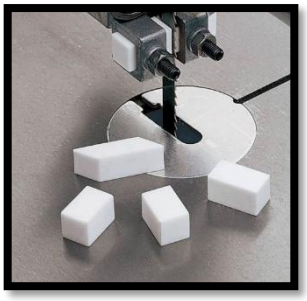
Most saws come with guide blocks made of steel or cheap plastic. Many commentators recommend that you upgrade to Cool Blocks (KMS: $16). Made of phenolic resin embedded with graphite, they are self-lubricating and soft enough that they will not damage the teeth of a blade.



Cool blocks are not only the cheapest, but they also allow you to position the leading edge right at the deepest part of the gullet to provide maximum support.

However, they do require regular maintenance as they wear relatively quickly. You should check them frequently in order to ensure they are square.

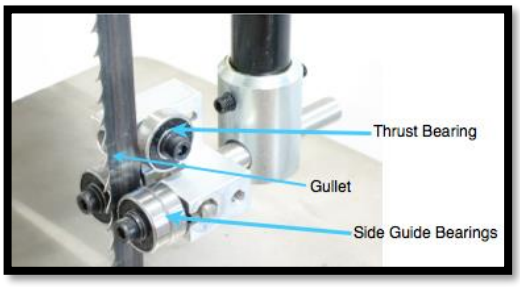
Some turners prefer ceramic blocks which are composed of compressed aluminum oxide since they maintain a square face much longer than Cool Blocks. However, they are more expensive (Rockler: $38) and may damage the teeth (and create sparks) if not properly set.



As for distance from the blade, most sites suggest .001 - .003 clearance. Rather than using a dollar bill (assuming you can find one), Fortune recommends tracing paper or cigarette paper if you are using cool blocks.

b. Bearings

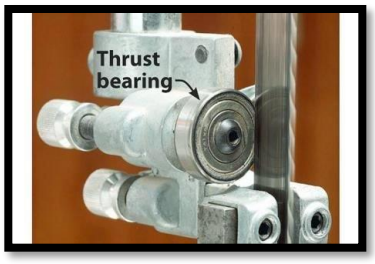
Bearing guides require greater clearance than cool blocks. They should be set approximately 1/16" behind the deepest part of the gullet. Any closer and you run the risk that the metal bearings will rub on the teeth and alter the set.



Bearing guides also need greater clearance from the blade. If the guides rotate when the machine is on but with no load, they will burn out quickly.

6. Thrust Bearing

This bearing should be set so that it only turns when very light pressure is applied to it. If it is set so that it touches when simply turning the wheel, when fired up it will cause the blade to drift.



The best way to accomplish this is to slowly advance the bearing while turning the upper wheel by hand. The moment the bearing starts to rotate, stop and back it off "a hair's breadth".

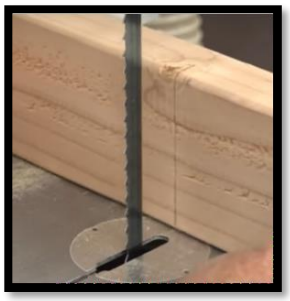
Note: On some saws, tightening the locking mechanism for the bearing, can change its location. Accordingly, after doing this, turn on the machine and check that the bearing is not rotating when no cutting is taking place.

7. Square the Table

Ensuring that the table is square to the blade will minimize pressure on the blade and reduce the likelihood of binding - especially when cutting a thick blank.

Fortune simply uses a small square.

A more accurate method is to make a shallow face cut on a piece of 2x4 or 2x6, flip the board around and try to slide the back of the blade into the cut slot. If it enters smoothly the table is square to the blade.



8. Two Inexpensive Upgrades

a. Compression Spring

The upper wheel assembly contains a compression spring which provides a cushion against sudden shock or increased tension as for example when a blade binds. If your saw is old or it does not have a tension release bar it is possible that the compression spring is fatigued. If so, you might want to consider a new spring (LV: $27)

b. Tire Brush

Dust/pitch buildup on the wheels will affect tracking and produce vibration. While a tire brush will not prevent this, it will help to minimize the buildup. While you could configure your own system using a stiff brush, the cost of a manufactured one is relatively low (LV: $9.50)

9. How to fold a bandsaw blade

While there are many ways to coil a bandsaw blade, the simplest method is shown in the following video at the 1:35 minute mark. (Always wear a heavy-duty glove.) https://www.youtube.com/watch?v=wGbZqWac0jU

10. More Information

If you want more explanation of these tips, check out the following video: https://www.thewoodwhisperer.com/videos/best-way-set-bandsaw/

FOR SALE

A few years ago, Hew Lines built a number of these pyrography burners. I am told by many members that have them that they work quite well. However, I have never used mine since I already have another one and to date have done little pyrography. So, in trying to find new places to store new things I've decided to sell this one for $100. Comes with two pens and two sets of burning tips.

If you are interested contact André at 250-588-3580 or twolapins@shaw.ca

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PARTING OFF

Thanks to Emma for the demonstration, Stu for the photos and the members of the Executive for their efforts to respond to the impact on the Guild of the coronavirus.

Special thanks this edition goes to clerks in grocery stores and pharmacies.

CONCLUDING THOT