



New meeting Location

Jerry Decker

The following are some simple directions on how to get to the new meeting site.

From 680 N. take the Alcosta Blvd off-ramp. Turn right, and follow Alcosta past the Ralph's shopping center, on the right, and the golf course on the left. Go two blocks past the stop sign at the golf course, to Olympia Fields Dr. and turn right at the stop sign into the driveway for the Senior Center.

From 680 S. take Alcosta off-ramp, turn left and follow the directions above.

May Club Competition

Robert Whitworth

The club competition will be judged and ribbons awarded. For those of you who feel this is too stressful, or have turnings that don't fit the categories listed below, we invite (THIS MEANS IMPLORE AND BEG) you to bring your turnings for the expanded show and tell.

Competition categories, May 2002:

- 1) Plate, maximum diameter 9"
- 2) Platter, minimum diameter 10"
- 3) Gavel
- 4) Surface treatment of your choice
- 5) Hollow form, 1 1/4" maximum opening

6) Finished edge bowl

Editor's note. The following articles and the monthly series to follow are courtesy of the NZ Woodturner

Bandsaw Maintenance

By jim Manley— Technical Editor

In the first article we discussed the options that needed to be considered when buying a bandsaw. This article considers how to tune your saw and maintain it to keep it performing well.

New and Used Saws

One would expect that a nice new, out of the packet, band saw would perform well and do all things the manufacturer says it will - Yea right! What I am going to discuss is what you can do to tune your band saw so that it will cut straight, cut square, the blade won't keep falling off, and the saw won't vibrate during use. There are a number of areas that need to be addressed these are: Wheel alignment, adjusting the thrust rollers and blade guides, table alignment balancing the wheels

Wheel alignment

In a perfect world, the top and bottom wheels of your bandsaw will be in line. If they are not, the top wheel has to be tilted to keep the blade tracking in the middle. If there is a huge amount of top wheel tilt the blade is likely to fall off at

the slightest provocation. Blades are easily checked for alignment with a straight edge or metal carpenter's level.

Step 1 - Fit your widest blade and ensure it is fully tensioned. A little over tight is best, as this will cause any slop to be taken out if any free-play is present. The top wheel angle adjuster needs to be placed in the neutral position so the top wheel is vertical.

Step 2 - Place the straight edge so it touches the top and bottom of the bottom wheel. If the alignment is true, the straight edge should also touch the top and bottom of the top wheel while it is resting on the bottom one. If both wheels don't touch the straight edge, some adjustment will be needed. If there is an alignment problem you need to measure how much difference there is between the top and bottom wheels and adjust the mount point accordingly. Wheel alignment is usually adjusted in two ways, either by placing packing washers behind the axle of the top wheel, or by moving the driving position of the bottom wheel by moving it along the drive-axle, after releasing the grub screw that attaches it. The easiest method is to remove or insert washers behind the top wheel. I found that the hardest part of adjusting my saw was undoing the big nut on the top wheel and finding the right sized

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The Bay Area Woodturner's Association is a local chapter of the American Association of Woodturners. Our purpose is to provide a meeting place for local turners to share ideas and techniques and to educate the general public regarding the art of turning. The Association meets the second Saturday of each month at the Senior Center in San Ramon. The Association periodically sponsors exhibitions and demonstration by local and internationally known turners.

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Board of Directors Meeting Notice

BAWA Board of directors Meetings are held at Denica's Cafe (in the same center as WoodCraft) 8AM to 9:45AM. Board meetings are open to all members. Contact Harvey Klein if you would like to be on the agenda.

Presidents Challenge 2002

January: *Plate or platter*

February: *Gavel*

March: *Inlay, color and texture
some type of surface treatment*

April: *Trembleur, hollow form*

May: *Members competition*

June: *Kaleidoscope, sphere or
ball box*

July: *Letter opener*

August: *Club picnic in Roseville*

September: *Segmented turning*

October: *Goblets*

November: *Members competition*

December: *Ornaments*

The President's Challenge is organized to prepare members for our club competitions. The challenges prior to the member competition are the same as the categories in that competition. The demonstration/workshop will correspond to the subject of the next month's challenge. This schedule offers you an opportunity to see one, make one, and compete.

Club Meeting Dates & Topics 2002

January 12: Surface treatment.
Jan Blumer

February 9: Miniatures.
Robert Whitworth

March 9: Hollow forms. *Don White*

April 13: Feet. *Bill Small*

May 11: Kaleidoscopes, history, design and turning. *Jerry Decker*

June 8: The art of the finish cut. *Bill Small and Wayne Shipman*

July 13: Segmented turnings.
Wayne Cowden and Fred Deadrick

August 10: Club picnic—
Roseville

September 14: Goblets

October 12: TBD

November 9: *Noted turner*

December 14: Christmas party

Bandsaw Maintenance (Cont.)

washer to pack it out. Once I had the hardware the job was quite easy. Remember to recheck the alignment once adjustments have been made. While you have all the covers and the blade off its also a good time to remove the gunk from the tires on the wheels. Sandpaper attached to a stick is best for this. You might even like to try a wire brush.

Adjusting the Blade Guides and Thrust Rollers

The saw should run through the middle and at right angles to the table. Before commencing this adjustment, check the condition of the bearings and guides. Any defective bearings or guide blocks should be replaced. Look for bearings with worn sides, rumbling rollers and lack of internal lubrication. If in doubt over condition ask your bearing supplier or a garage mechanic for help. If one side of the bearing is worn from blade wear, it can be reversed on the mount peg and the other side used, but only if the rest of the bearing is OK.

Adjusting the Thrust Bearings

Step 1 - Loosen the mounts for the blade guides and rollers and back them off as far as they will go. (Located above and below the table. Now adjust the top wheel tilt so the blade runs through the middle of the table hole. (If the wheels are aligned this won't take much adjusting).

Step 2 - Adjust the blade thrust bearing first. (These are the roller bearings behind the blade that stop the blade moving backwards when cutting, there should be one on each guide set, above and below the table). The gap between the blade and the thrust bearing should be 1/2mm (use a feeler gauge). With the machine turned off, loosen the bearing

adjuster screw and slide the bearing axle until it touches the feeler blade in between the bearing and the blade. Make sure the blade isn't forced forward, then tighten the lock screw. Recheck the gap if OK, use the same procedure for the bottom bearing. It is important that the blade does NOT touch the bearings when it is not cutting wood. If the bearings turn when the saw is going but not cutting you need to do the adjustment again. The bearings are designed to turn only when the saw is under load when cutting wood.

Adjusting the Blade Guides

Most saws have guide plates to keep the blade from twisting in the cut. When the plates are out of adjustment or worn this causes your saw to wander in the cut. First check to ensure the plates are not worn, they can be reversed end for end if the wear is bad or replaced if the reverse trick has already been done. There should be a gap between the guides. The thickness of a \$1 dollar bill is about right. To adjust - loosen the guides on either side of the blade, wrap in your \$1 bill and press both ends together until they touch the blade. The pressure should not be too great, if you can't pull the bill out its too tight. Once the guides are set, tighten the lock screws and withdraw the dollar. Remember to repeat this procedure with the bottom guides. There you go - adjust you bandsaw guides for \$1.

Table alignment

For the saw to cut square the table must be at right angles to the blade. Most saws are adjustable to allow angled cuts to be made. There is usually a scale marked in degrees and a central point that marks 0 degrees of table tilt at 90 degrees to the saw blade. To check the table is level when the zero mark is aligned, use a set square against the blade

and the table. If there is a difference, adjust accordingly.

Balancing the Wheels

One of the main reasons a saw vibrates is the wheel balance. The top wheel is the easiest to do. Remove the blade and spin the wheel gently. Watch where it stops. Mark this position with a piece of chalk to a known reference point - say, the highest point. Spin the wheel again and see if the wheel stops in the same place. If over 3 or 4 tries the wheel stops in the same place each time the balance is suspect. A wheel that is in good balance will run on for some time and never stop in the same place. If the wheel is out of balance it is a trial and error thing to fix. Get yourself some blue-tack or a small wad of putty and attach a small nut or stone to the highest point (inside the wheel) and spin it again. If the nut stops at the bottom it's too heavy, at the top it's too light and so on. Once you have found the correct weight to use, mark the position it needs to be in and remove the counter weight, with the putty. Now weigh the 2 items with electronic scales so you know the exact weight of the two. Race down to the local tire shop and buy a mag wheel weight (with a sticky back) and attach it to the right place (remember to clean off the dust first). I found with mine the balance problem was in the top wheel. If the vibration is still there you have to repeat the above procedure with the bottom wheel. Remember to remove the drive belt from the motor before you try to spin the bottom wheel. Well that covers most of the adjustments you need to do to tune your saw. I found most of the info that I used to tune my saw in various books in the library. I suggest if you are having trouble understanding the technical aspects or the directions in my article go down to the

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Bandsaw Maintenance (cont.)

library see what you can find to help you. In the next article we will look at trouble shooting, maintenance and jigs that can be made to help us with our tasks. Good luck

Bandsaw "Tricks of the Trade"

By jim Manley— Technical Editor

with your tune-up.

In the first article of this trilogy we looked at what was required in a bandsaw to help the would-be buyer. In the second article we covered tuning the saw and some maintenance. In this final episode I will discuss health & safety, some home made jigs and "tricks of the trade".

Health & Safety

As far as power-saws go, the bandsaw is probably one of the safest to operate. Though one should never become complacent with any power tool there is less chance of drastic consequences if you follow a few simple rules.

Personal Safety

It's the usual story here, Eyes, Ears & Lungs are at risk, use the appropriate safety gear. Remember that with loose cuffs, neckties, and jewelry you run the risk of being sucked in!

Guards & Covers

It is really important that you remember to replace all guards and covers before you start the saw. The manufacturer has put them there for your safety - use them!

General Safety

Dust

The hazard of dust is a huge problem for woodworkers. The best advice I can give here is to attach your dust extractor to the bandsaw. Some saws have a dust extractor tube that allows permanent hook-up to a dust extraction system. If you don't have a mount point, you can attach a tube from your dust extractor under the table as close as practicable to the blade. The tube can be attached with wire for temporary fastening or a more permanent arrangement can be sought from a local engineering firm. In both cases, any air born dust will be carried away during cutting, before it reaches the operator. For the extractor-less operators, my advice would be to don a mask to ensure your own safety.

Sawdust

There is not a great deal you can do about the sawdust, but you must ensure it is cleaned out regularly to keep the fire hazard low. As with any saw, the build up of sawdust is obvious, however, don't forget the hidden areas around the legs where sawdust can build up unnoticed.

Green Sawdust

It is well worth mentioning that green sawdust could cause you some dire problems. We are all aware of the heat that is generated in the compost heap. Green sawdust is basically the same stuff, and it is possible for the heat produced during the composting process of green sawdust to reach ignition point. If this heat is coupled with a layer of dry sawdust under the hot stuff and you may have to invite the fire brigade around to your place for some hosing practice. My advice here is to clean your saw out before you cut green wood and again once you

have finished. This same bit of advice should be observed when turning green wood on the lathe.

Safety During Usage

Top Blade Guard

It is really important that the adjustable top guide be set as close as practical to the job being cut. A good rule of thumb is about 15-20mm max of clearance between the guide and the billet being sawn

Fingers

Woodworkers are not renowned for their ability to count to ten using their fingers. Don't add your statistics to this list by removing a digit. Concentrate on the job at hand and use a push-stick on the smaller items. It's a good idea to hang a push-stick within arms reach on the side of the bandsaw so it can be retrieved in an emergency.

Pulling-out

If you have to back out of a cut, you should first turn the saw off first. Bandsaw blades have a nasty habit of jumping off the drive wheels when they are backed out of a cut. This is because when you make a cut, internal tensions in the wood often close the gap you have just cut. Thus it pinches the blade and with no guide to stop the forward movement it jumps off the wheel. This can also cause the blade to run on the metal covers and destroy the sharpness of the blade. Never leave the saw running unattended. If you need to leave the area to attend to other matters, switch off the saw first. It might save someone else's fingers.

Operating without a top guide

Never remove the top guide to gain more cutting height. This is a very dangerous practice that can cause the blade to wander, jam or launch

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Bandsaws—"Tricks..." (cont.)

itself off the drive wheel into the face of the operator, a very silly trick if you ask me!

Lastly - turn the saw off to remove small chips and offcuts. Remember the count to ten trick as above.

Jigs

As far as the average woodturner goes there are not too many jigs that you need to make. I have made 2 jigs only, these are for: Cutting Circles and extending the table length

Circle Jig - As a woodturning teacher, I need many blanks that are exactly same size and I only need 3 or 4 different sizes. My circle-cutting jig is a simple device that mounts off a 3/4" plywood table cover. This cover is the same size as my saw table and fits around the blade with a small clearance hole and is attached with a couple of g-clamps. There is a long cut from the center hole, to the backside, to allow fitting pass the blade. A strong nail is banged in from the table side and cut off at 1/4" long so it protrudes upwards, this is then sharpened to a point. The nail is set on the board at right angles to the blade on the radius size of the blank I require. My bowl blank boards are first cut into the exact size squares with a cross cut saw. I then start the cut with the end-grain touching the blade. It is now just a matter of rotating the blank about the nail to cut the perfect blank. I find it is quicker to have 3 circle jigs with set nails rather than have an adjustable jobbie that I have to reset each time.

Extension table

I found that quite often when breaking down logs or long boards I needed help to hold up one end while I cut off the 6 inches or so I needed. To beat this problem I made an extension table that attaches to my saw table and extends out. I made this from a full length

of ply and it attaches firmly around the table with a blade slot like the circle cutter and it has a foldaway leg holding up the free end. It is braced either side with 3x2 dwangs every foot or so which has so far (touchwood) survived all the big bits I have thrown at it. I can now saw some fairly long boards with out calling for help. This is the device I use for cutting those square blanks as above.

Afterthought

From time to time I need to break down a bowl blank into platter or clock blanks. I don't know if you have tried this, but it is a very dangerous practice, especially if you have 3tpi blade like mine. The blank usually gets ripped out of your hands and breaks the blade or it puts a really nasty bend in it. My cure for breaking down blanks is to use a g-clamp attached to the blank to add some handholds and leverage. I saw 1/2 way through then stop the saw and back out of the cut. I can now remove the g-clamp and continue the cut by pulling the blank through from the other side.

Fitting a Sanding Belt to your Bandsaw

This is real cool. I buy a length of cloth-backed sanding strip. (It comes in 15-20mtrs rolls). I get a length the same size as my saw blade and join it with a couple of feet of cloth reinforced duct tape. Remember to cut the joint on a 45-degree angle for strength. Now fit this in place of your bandsaw blade. Remember to back off the saw guides to save them wearing out and don't tighten it up too much. I also have a piece of plywood that attaches up the back of the top guidepost, that the sanding strip runs along so I can sand against it. Does this sound good - its great, especially if you don't have a finisher.

Wood Raffle

Gene Pitkin; Spalted Maple

Harvey Klein; Avacado, misc Oak, Fruitwood

Jim Abreu; Eucalyptus

S. Hosemann; Chinese Elm, Spalted Birch

Robert Whitworth; Ebony, Blood Wood

For those of you who bring wood for the raffle, please sign the donations log. I would like to make sure that you are acknowledged here.



Show and Tell

Leo Lichtman; Morse taper chucks

Jim Rodgers; Shadelands Oak movement

David Burton; Bowl

Brad Adams; Camphor vase and bowl, Tulip poplar unnatural edge bowl

Del Morisette; Termite tool

Harry Levin; Black Acacia bowl

Jerry Decker; Redwood Burl vase

Hal Bain; Flower pot

Ron Newcomb; Platter, small bowl

Harvey Klein; Bobbin Winder

Jim Trusler; Camphor box

Fred Deadrick; Maple/Elm weed pot, segmented bowl

Kevin Welsh; Walnut vase

Elizabeth Lundberg; Coast Live oak set, comparison of drying techniques

President's Challenge

Jim Trusler; Oak Burl Vase

Fred Deadrick; Mini Trebleur



Above: Brad Adams



Above: Del Morisette
Left: Elizabeth Lundberg



Above: Hal Bain
Left: Harvey Klein



Above: Fred Deadrick
Left: Jim Trusler

