EDWARDS MOUNTAIN WOODWORKS, LLC

fine handtool woodworking: creating and teaching in wood



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Bowsaw Webs

Bowsaw webs are often measured as the length between the points of attachment, which also is usually the length of the saw stretcher, tenon shoulder to tenon shoulder. Thus a 15" web should be 15" from hole to hole and the actual web length is generally 15 $\frac{1}{2}$ " to 16". This is not a universally recognized convention, however, so be sure to verify.

For tight radius of cut, use a 12" bowsaw with webs that are 1/8" to 5/16" wide. For a wider radius of cut or for straight cuts, use a bowsaw that is 15" or 18" long and webs that are 3/8" or wider. For ripping cuts, consider a 24" or longer frame saw where the web is either fixed in the frame or attached by pins designed to hold wide webs and still allow the webs to be turned.

The Melhuish bowsaw is basically a coping saw sized bowsaw. It uses holed 6" webs. Commercial coping saw webs are pinned but will work just fine. The pins in the webs need to be tapped out. Make a jig out of hardwood, aluminum bar stock or mild steel. Drill a 1/16" diameter hole through the flat face. Lay the coping saw web over this hole with the pin resting in the hole. Tap the pin lightly with a small hammer. The pin should slide out. You may need to pop the pin out using a fine pointed nail set or metal punch. Tap the web ends flat and file them lightly to remove any burrs.

The Howarth bowsaw, which I studied and made a copy of was a 15" saw, with a ¼" wide, 9 points per inch (ppi) web, sharpened with a moderate rake and in a rip fashion.

Tom Calisto, a local sawmaker (<u>http://www.windwardwoodworks.com</u>; email at <u>calistotools@gmil.com</u>) has begun to produce bowsaw webs to my specs, and at reasonable prices. Contact Tom for details about pricing and availability. This is truly you best option for getting bowsaw webs in exactly the format that you want. You can specify width, length, ppi, rake, fleam or no fleam.

The only other commercial source for larger turning or bowsaw webs that I have been able to identify are Tools for Working Wood (<u>http://www.toolsforworkingwood.com</u>) and Traditional Woodworker (<u>http://www.traditionalwoodworker.com</u>.

TFWW sells webs that are 12" long and have both pins and holes at each end. These webs can be used with TFWW bowsaw pins (straight sided pins without taper, which are both slotted for pins and drilled for holes so that you can mount the webs in either manner). TFWW sells three different webs in a pack. These webs can be used with my tapered bowsaw pins as well. The webs have 10 to 24 ppi, are 1/8" wide and sell for \$13 for a set of 3 in a pack

TWW sells replacement webs for frame saws and for turning saws. TWW used to sell a 15" turning saw web but now the only turning saw web they have is 24" long, 9 ppi (item no. 545-2521), which sells for about \$17. This can be cut down to any desired length. The sizing of these webs (width, thickness and ppi) is just about what I found in the Howarth bowsaw that I studied. They are a little wide for turning a tight radius, however.

I initially made my bowsaw webs out of bandsaw blades. These blades come in many widths and ppi as well as lengths. Bandsaw blades are generally in the range of \$25, and you can get 5-6 webs out of one web, thus this is a highly cost efficient method for obtaining webs.

Cut the bandsaw blade to length using metal shears. I generally cut the webs so that I have $\frac{34}{7}$ to 1" extra length beyond the target length. On a grinder, take off the last inch of teeth at either end of the web (only the teeth are hardened). Try to leave as much width as possible, especially on the narrower webs. Drill a 1/16" hole at each end. You will need to do this on a drill press. Use a metal punch to locate the hole. Make sure you clamp the web down securely so that it does not spin on you when the hole is drilled! I have found that I cannot accurately drill holes in webs narrower than 3/16". File the end of the web round, and file off any burrs from drilling. You may need to thin the ends of the web to get them to fit into the bowsaw pin slot.

I like to use small decorative brass brads as pins (escutcheon pins), available at any local hardware store. These are generally 16 gauge or smaller and will fit in a 1/16" diameter hole. Nip off the point of the brad.