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Steam Bending

by Jeff Spira

The longitudinal elements used in building framed boats often must be bent into shape. These are, the keelson, sheer clamps, chine logs, and rub rails. Depending upon the species of wood, the moisture content, the thickness and of course, the severity of the bend, these can sometimes be very difficult to coax into place, and sometimes will snap unexpectedly. In these times, the wood needs to be softened to bend it. This is done by adding moisture to the wood.



There are many ways to temporarily add moisture to wood to get it to bend. Submerging it in a water bath (one way is in a stream or lake held down by rocks or anchors) for two or three days will make it flexible enough in some cases, but to truly get it to bend easily, you need to steam the wood. There are many traditional ways to steam wood, involving steam boxes or other contraptions, but there is an easier way for the builder just trying to put one boat together in the garage.

Begin by wrapping the area that requires bending with rags. Old terry cloth towels are the best bet, but anything from old jeans to shop rags will do fine.

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Set a kettle of water (or use a pot if you don't have a big enough kettle) and bring some water to a good rolling boil. Pour this over the rag covered area. Then fill it with water and set it on the burner again. After 20 minutes or so this should be boiling again and dump this over the area. Then fill it and put it on the fire again. This time be prepared with clamps gloves or come-along straps as needed.



Once the third pot of water has been dumped on the bend area, the lumber should be quite flexible and while the wood is too hot to handle without wearing gloves, you can remove the rags and pull the stringer into place much easier than before and without breaking.

The wet wood will glue with epoxy and take fasteners just fine. It will dry in a few days to be just as strong as it was when you began.

Be careful when doing this process. Hot water can scald you and cause considerable injury and pain. Wear gloves, an apron, protective shoes and use pot holders to be sure you don't harm yourself. Beware also for kids or dogs that may be playing under or around your boat when doing this.

