**CONSTRUCTING A NEW WESTSAIL 32 RUDDER**

The W32 rudders are simply foam with a fiberglass skin, and built in a split mold. However since that mold is no longer available, a rudder can be built similar to building a surfboard.

Use a piece of fiberglass material, or a high density foam board such a Gator Board to make the outline shape of the rudder, and used closed cell foam on either side to fill out the cross section shape of the rudder. Then use fiberglass mat and cloth over the foam shape.

For the Westsail 32, use the drawing of the rudder core with dimensions and cut out the core material. This drawing is used for the Westsail 32 rudder that used fiberglass gudgeons and bronze pins in one open side of the rudder.

To make sure that your three pintal pins line up, use a 7 foot long straight piece of 1-1/2” OD fiberglass tubing going from the bottom of the rudder up the leading edge that will align the bronze pintal pins. Bond this tube to the rudder core. After you fasten on the foam, and shape the rudder, cut the tubing off at the top and bottom of the prop cutout, and at each of the gudgeon locations. You can now use the mat and cloth to finish the rudder.

You can slide the bronze pins into the tube at the three gudgeon locations, and install a bolt above and below each gudgeon location to secure the pins in place. Then you can plug up the open tube holes if you want. That way you will be sure all of the pins and gudgeons line up on center of the stern. Also there will not be a need to machine flats on the pins, saving a labor cost. Get three 12” lengths of C-6555 bronze for the pins if you need new pins.

If your existing rudder used stainless pintals, then make the cutouts smaller, and use some of the core material in the locations where you will be drilling holes in the rudder to install the pintal bolts. That will give a much stronger location for the pintals. Might be a good idea to install the pintals with one bolt only and snugged up. Then hang the rudder onto the gudgeons already on the hull. That way you can make sure the pintal pins line up. Then drill the remaining holes through the pintals and bolt them in place.

The Gator Board can be purchased by contacting [info@polyumac.com](mailto:info@polyumac.com) or 305-691-9093. The fiberglass tubing of 1-1/2” OD has an ID of just slightly over 1-1/4”, so works fine with the 1-1/4” OD bronze pintal pins. This tubing can be purchased from Centek Industries, the company that makes fiberglass tubing and mufflers. [www.centekindusries.com](http://www.centekindusries.com).