Ch 7 - Mounting the Stems & Hog

The first part of actually putting the boat together!

Preparing the Hog

You will need to have the hog or keelson planed to size. Unless you have had the hog supplied in a single length, you will need to scarph the pieces. The scarph should be cut with a minimum ratio of 1:8.

The hog runs straight in the boat, so it is probably easiest to mount the parts of the hog on the moulds, and glue in situ. Do not attempt to glue the other joints in this operation at this time.

It is best to tighten up the horizontal clamp(s) first as these will help stop the joint slipping when the vertical clamps are applied. Ensure that clamp pads are covered in packing tape so they do not become a part of the boat.

Apply more clamps to hold the joint while the epoxy is curing, but do not over-tighten.

When the epoxy is cured, remove the clamps, then clean up the joint so that there is no excess epoxy showing.

If the hog has knots, give each of them a tap to check that they are secure. Any dry knots should be removed. Sand out the resulting hole, and fill with a thick mix of epoxy and some of the copious amounts of sawdust that you will have generated.
Preparing the Stems

The bearding line now needs to be added. Mark the centreline of the aprons, then mark a line ½” either side.

This is the bearding line which is used as the limit for fairing the stems in the next stage.

Clamp the aprons to the stem girders so that you have the closest fit (it is highly unlikely that there will be a perfect fit!). Make a couple of marks so that the apron can be returned to the same point after unclamping it.

Lay the hog (or another long straight-edged object) vertically along the moulds so that it runs past the aprons. Mark the line on both sides of the apron.

Remove the excess stock to a line a couple of millimetres above the mark. This is easiest and most accurately done with a Bandsaw. If hand sawing or using a jigsaw, ensure that you do not go over the lines on either side.

Clamp the apron to the stem girder again, then use a hand plane to take it down to the precise line, fitting it to the hog before gluing.

Do this at both bow and stern.
Frames
The frames will also be glued into the boat at this stage.

Make sure that the contact points between the hog and all the moulds are covered with packing tape or similar so that the moulds are not glued into the boat.

Clamp the frames to the moulds with a couple of clamps on either side. It is not recommended to screw them to the frames for reasons which will become obvious when fairing and gluing.

When starting gluing, remember that the gluing surface of the frames at the joint is all end grain, and will require wetting out.

Gluing
When all the joints have been prepared, systematically work along all the gluing surfaces, wetting out, then applying a microfibre mix.

Clamp the joints tightly enough to hold them securely in place, but not to squeeze out all of the glue.

Ensure that the moulds are at 90° to the building frame when clamping the frames. When done, retire to the nearest suitable hostelry, and celebrate the first major stage in the construction!