

# A Simple Gooseneck

by Doug Hemingway

When *Model Yachting* Editor Rich Matt sent out a call for articles for this issue, his e-mail mentioned something about not needing “yet another gooseneck design.”

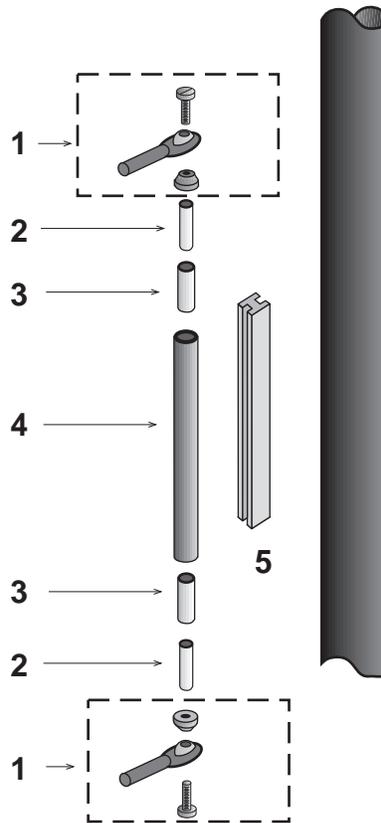
But, this design is lightweight, easy to build without a machine shop, and very low friction. All the components are readily available at any hobby shop. So, this is NOT “just another gooseneck”.

The components are sized for a US 1 Meter boat, and should work fine for any class in this size range.

The bill of materials for this gooseneck is:

1. #2 ball link (2 required)
2. 2-56 threaded coupler (2 required)
3. 5/32” brass tube (2 required)
4. Segment of 1/4” carbon fiber arrow shaft.
5. 1/4” Plastruct I-beam

I used the threaded coupler because it is softer than brass tube (and so easier to tap), and its wall is thicker than the tube. First, tap the threaded coupler receptacle with a 2-56 tap. The external threads are not used, so if you



clamp them in a vise to hold the fitting while you tap it, no harm is done. Cut off the external threads after tapping the internal ones.

Cut two pieces of 5/32” tube and rough up the outside with sandpaper. Glue them in each end of the arrow shaft with epoxy or thick CA.

Glue a threaded coupler inside the brass tube at each end.

The plastic I-beam is used to maintain alignment with the mast, and provide clearance for the ball link. Sand the flanges of the I-beam to the desired amount of offset of the gooseneck from the mast (the less the better), and glue the arrow shaft to the I-beam and the I-beam to the mast.

Whenever I attach fittings to any spar, I lash the fitting to the spar with monofilament fishing line. Twelve turns of ten-lb nonofilament means you would have to apply 120 pounds of force to break the fitting off!

Attach the shank of one of the ball links to the boom. I pin the ball link in the boom with a length of 1/32” brass rod because I don’t trust any adhesive to hold where there is a shear load on it.