

## BOAT MAINTENANCE

### Jib Boom Tack Fitting Failures

The deck fitting called “#1 Eyelet” on page 10 of the AG instructions fails frequently. It occurs when the winds are fresh and a collision impacts the headstay. Surprisingly, I have not seen a mast fall because of this, but the boat is made difficult to manage.

When the fitting fails, the boat will get a DNF and DNS in the next heat if the repair takes too long.

The eyelet carries the headstay load pulling up on the eye and the same size load pulling aft along the deck to the deck cleat. This latter load bends back the upside-down “U” shaped part of the eyelet. That is what breaks off, leaving the bottom of the eyelet and two screws in place.

#### QUICK FIX

Greg Worth’s fix at the pond is to tie a small loop of line around the jib tack line leading from the boom to the cleat. Then fasten the loop to the deck using the eyelet base. (Hopefully the eyelet has not been glued so it can easily be removed using the screws.)

For insurance, why not do this before the fitting breaks? Then, if it does break, you can continue racing to get better points than a DNF.



Groove the eyelet to recess the line

#### EYELET MODIFICATION

The photos show one way to strengthen the eyelet. It is an elaboration of the **Quick Fix** except it may prevent the eyelet from breaking.

Use an Exacto knife and/or a small file to put shallow grooves in the bottom and sides of the base. (Photo below left.) This allows the base to sit flat on the hull and provides clearance at the sides so the eyelet will fit into the deck recess. A shallow groove at the top of the eyelet may help keep the line wrap in place. Then wrap the eyelet as shown with three



Reinforce the eye with wraps of line

turns of rigging line. If you have it, use Kevlar line. Get as much tension in the wrapped line as you can manage. Secure the line with CA or epoxy glue.

#### MORE ELEGANT DESIGN

The photo on the right shows an aluminum eyelet. It was shaped from a piece of aluminum to have the same shape and size as the plastic eyelet. A hack saw, files and sand paper shaped the part. The holes were drilled. Aluminum is soft an easy to work. Brass would be suitable, too.

Since aluminum is so much stronger than the plastic eyelet, a slot was made in the left leg of the eye. The jib boom tack line can be removed from the eye without cutting the line. This allows easier removal of the rig from the hull.



Aluminum Eyelet