



BUILDER SPECIFICATION UPDATE NO 4

GC 32 - Foil Fearing Upgrade

Revision:

| Date | Status | Editor |
|------------|---------------------------------|--------|
| 12-12-2016 | First Version | SD |
| 20-12-2016 | Feedback class | CS |
| 05-01-2017 | Feedback TGC | SD |
| 11-01-2017 | Feedback class | CS |
| 19-01-2017 | Final version Approved by class | SD |

This update and information is given in accordance of the GC32 Racing Rules.

Goal:

The purpose of this change is to avoid the foil from cracks or damage on the join of the fearing due to more and more load and flex out of the more high-end usage of the boat. To avoid this, it is believed that it is key to make sure the fearing is less flexible, so flex difference between the shaft- or tip and fearing is less. TGC (The Great Cup), Suggest to replace the fearing foam of the actual configuration to resin to avoid this flexibility.

The new method applied to the fairing has been extensively tested during many weeks of sailing in many high wave and high weight. TGC is now confident that this is best building technic to guarantee a longer lifespan of the fairing. However it is important to notice that TGC will still not be hold responsible for the maintenance of the fairing.



Procedure:

Prepare for upgrade

1. Remove only the intrados fearing shell if the extrados is still intact
2. Remove all the foam, until you have a clean ferule left and you see the inside of the extrados.

Installation instruction

Placing the fearing

1. Create a recess 10mm deep in both front and back cell of shaft / tip and make sure the recess is airtight.

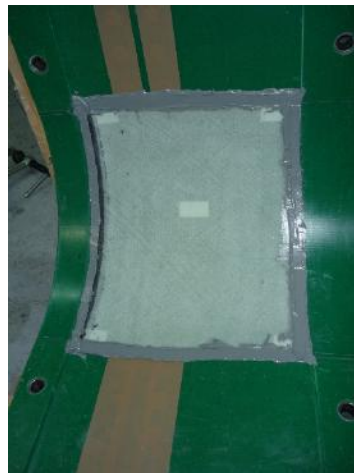




2. Prepare foil + spare glass fairings (sanding / cleaning).



3. Bond with 2 components PU adhesive.



- No tooling is required, use tape to “clamp” fairings onto shaft / tip onto each other.



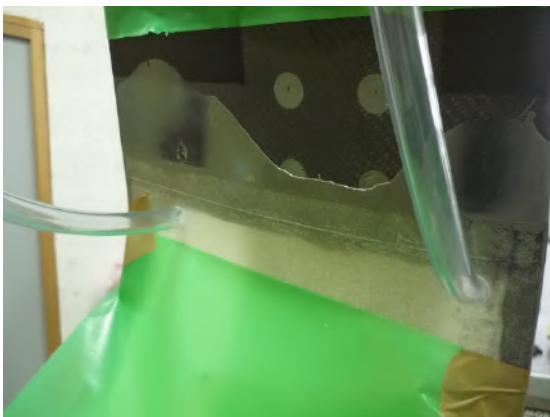
Resin casting

Max 500g per mix / 18-20°C room temp / max 0.2bars vacuum / keep resin pot above the filling hole, while and after filling the fearing.

1. After fairing PU bonding has hardened, install foils on stands so as tip is vertical.

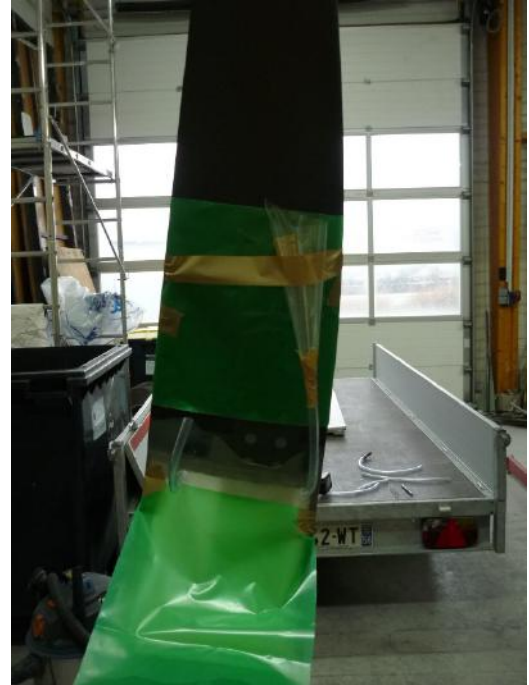


- Put a shim under trailing edge to have foil slightly balanced toward leading edge.
2. Drill two holes of 15mm in the intrados close to the tip, one at the leading edge and one at the trailing edge at maximum height / width.



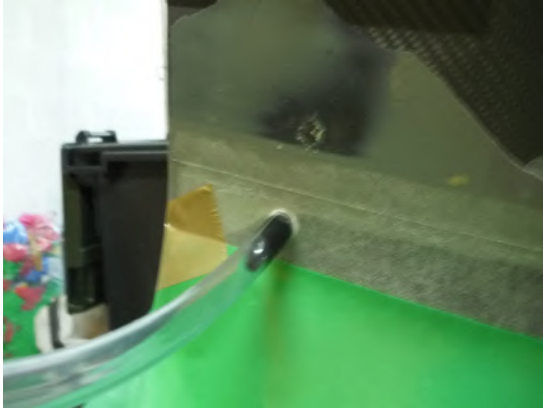


3. Insert a crystal pipe in both holes and add a Mylar funnel to leading edge pipe.



4. Cast knee with UR3450 mixing of maximum 500g isocyanate + 175g polyol each time (total required amount is 1650g isocyanate + 577,5g polyol for 1 fearing). Temperature should be around 18/20°C. Vacuum cleaner might be used at trailing edge pipe to secure flowing untills resin flows out of this hole.





5. Keep remaining resin in the funnel / exhaust pipe vertically taped onto the tip after casting.



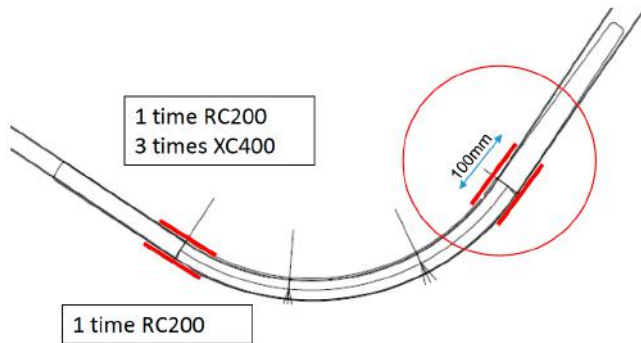
- Let the UR3450 harden for 24 hours at room temperature before laminating.
- Laminate the fairing as sated in Appendix X.



Laminate instructions (as stated in Appendix X)

For the repair of the foil at the joints at the extremities of the fairings on the elbow the following process is permitted:

1. It is allowed to laminate.
2. Not exceeding 50mm on each side of the joint (end of the carbon joint), on the inside of the curved surface.
3. On both sides (intrados and extrados), two layers of carbon 1 biax 300g/m² 75mm wide + 1 RC200g/m² 100mm wide.
4. Outside of the 50mm allowance, the fiberglass shall not be covered by any lamination.



In all cases a request for repair has to be addressed to the ICA.