



BUILDER SPECIFICATION UPDATE NO 9

GC32 - Front Lateral Pad-Eye

Revision:

Date	Status	Editor
11-04-2017	First Version	LL
20-04-2017	Installation version	LL
21-04-2017	Review technical Board	GRP
01-08-2017	Final version Approved by class	SD

Background:

The past 12 months, a series of questions has been raised about the strength of the front lateral pad eyes.

The pad eye has three functions: holding the JL1 and GL1 cables as well as one corner of the front trampoline.

The current pad eye is a Antal pad Eye 7506 pad eyes with a Safe Breaking Load of 1300kg. The pad eye is hold by three M6-A4 bolts. On some customers, it was found that cheap stainless steel A2 bolts were used dropping the shear load to around 800kg.

There are been some report of concern on the strength of this setup. Together with the class, it has decided to upgrade all future boats with a stronger pad eye because of the sensitive possible consequences of a failing pad eye.



Goal:

The purpose of this change is to deliver a stronger pad eye without involving too much changes to existing customers.

Solution:

TGC has developed with Antal a new custom pad-eye

- With M8 bolts but with the same screw centerline position as the original pad-eye.
- A pad eye with a shear screw working load of 2000kg.

It must be noted that a number of pad eyes have been signaled with the wrong type of bolts. It is imperative that the bolts provided are used.


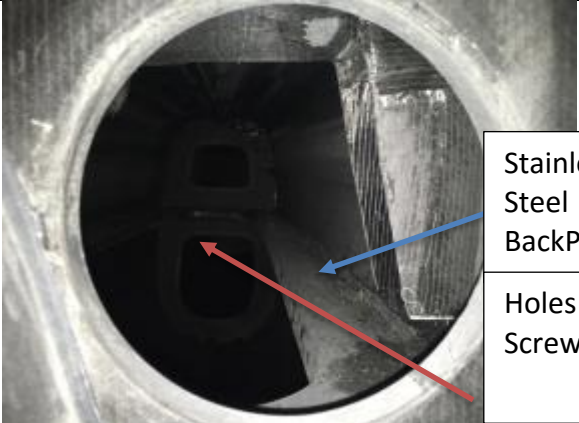


Tooling Needed to do the upgrade

M6 and M8 allen keys as well as a M8 drill	A 6.8mm drill bit
	
2 Pad eye with 3 bolts A4 M8 and 3 washer	A M8 tap drill
	
Torque Wrench	Sikaflex
	


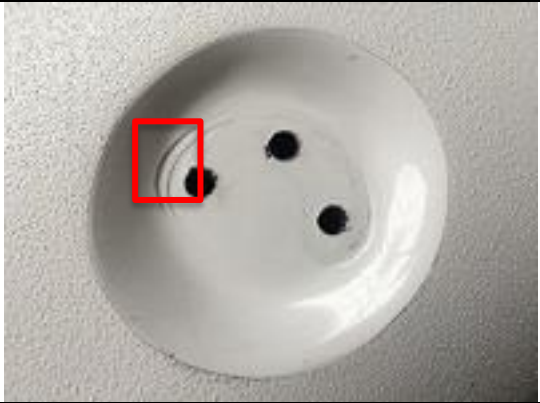




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Instruction

<p>Remove the existing pad eyes with a M6 allen key</p>	<p>Step into hull. Attach a camera device to a long stick to make photos of the inside of the hulls.</p>
	 <div data-bbox="1281 506 1487 793"><p>Stainless Steel BackPlate</p><p>Holes for Screw</p></div>
<p>Check the holes are well into the back plates.</p>	<p>Check that each screw holes is tapping inside the back plate of stainless steel plate. The plate is 5mm thick 45x60 aft from the bulkhead.</p>
	
<p>Enlarge the existing holes with a 6.8mm drill bit. It is essential to use the right drill bit size to ensure maximum screw contact. Do not forget to use oil when drilling into the stainless steel to avoid high temperature</p>	<p>Put grease on your M8 tap drill to avoid braking drill in hole.</p>



<p>Drill Tap the new holes with the M8 tap. Do not forget to use grease when tapping.</p>	<p>The side of the circle is filled with filler. You may need to sand the side to allow the pad eye to be well flush with the horizontal surface</p>
	
<p>Put grease on the screw provided with the pad eyes and screw them into the carbon. You might have screw then back and forth to enlarge the carbon socket. The goal is to have maximum surface contact of the M8 instead of drilling</p>	<p>Remove the screws and add Sikaflex around the hole to ensure waterproofness</p>
	
<p>Prepare the pad eye with the 3 washers provided</p>	<p>Make sure you have grease at the end of the screw</p>
	



Screw each bolt simultaneously to ensure they all take identical charge	Set the torque wrench and set it up for 30Nm. Screw the bolt at 30Nm
	
Remove the excess of Sikaflex	
	

Buy

The upgrade kit is available in TGC web shop in the Upgrade section under the name Front Upgrade #10 - GC32 - Front Lateral Pad-Eye:

The kit is compounded of the following products

- 2 Antal TGC custom Pad-eyes
- 6 M8 A4 screws.

The actual Price is 121,94 Euro ex Vat, ex Transport for the kit.

