

## Wrong location of stern cleats on the Leisure 27/29

Although I'm very pleased with my Leisure 27 some parts seem to be less satisfying. After "YELLOW DREAM" was craned in last year I moored her for testing the engine and gear before proceeding to her dedicated berth 20 miles away.

She was tied up with a frontline to the cleat on the bow and the stern line to the stern cleat which is situated at the outer side of the coaming. When I put the engine in forward gear and increased the rpm suddenly the stern cleat broke away from the coaming, ripping a piece of GRP with it!

Looking at the hole I saw that the grp thickness behind the cleat only about 3-4 mm and that the cleats were attached without any reinforcement! Also the forces that will be on the cleat are not in line with the cleat which is quite a bad construction. So the original construction of the stern cleats at the Leisure27 (and probably also on the L29) is definitely insufficient for the forces involved and can be conceived as a construction fault.

After repairing the hole in the coaming with GRP I avoided using the stern cleats and used the spinnaker winches for mooring instead which, by the way, **do** have reinforcements underneath the GRP. This year I decided to finally change the location of the stern cleats for a better location. Having a look at the possibilities the only other location appeared to be the narrow gunwales besides the coaming just below the original location.

So I started removing the cleat that was still in its place (as you know the other one was already torn off). It can be clearly seen that this cleat (starboard side) has also weakened the GRP and several cracks can be seen on one of the photos below. I removed the cleat by drilling out the bolt heads from outside to avoid a nasty job inside the cockpit locker.

I chose a new location at the gunwale just below the original place at the coaming taking care of the accessibility of that location underneath the GRP from the cockpit locker and the quarter berth. The thickness of the GRP at the gunwales being 8mm (instead of 4 at the coaming!) already gives a much better strength. Also most of it is already reinforced for the toerail.

The cleats were installed using a firm piece of 20 mm plywood, glued in place with glassfibre/polyester paste as reinforcement.

Because I found the original 1/4" bolts a bit cramped I also enlarged the holes in the cleats to 8.5 mm for use of 8mm bolts.

