MEASUREMENT

Modification of the 5o5 specification

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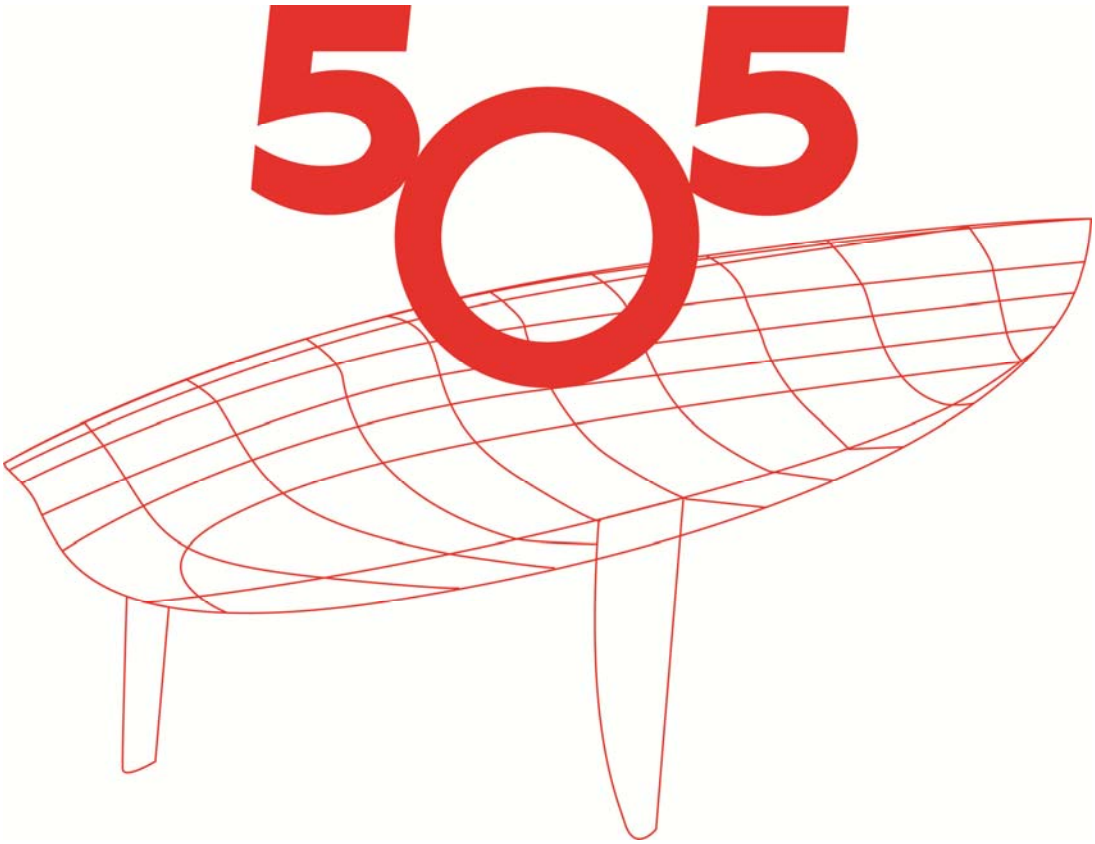


Summary

1 5o5 class rules – part B – The measurement rules

The requirement to enlarge the tolerances isn't well understood. The improvement of the process (3D machining) and materials (molds are stiffer and the Epoxy resin is more stable) to obtain the molds allows to guarantee a better accuracy than the past. In parallel the measurement tools have been also improved. On this basis I consider the following proposals. The question raised to avoid few measurements only concern the measurer and not the Technical Committee. Furthermore some of them add new controls.

Is the modification requested have a link with the last Rondar batch which doesn't meet the specification? Is it an enlargement of the specification to make these boats conform?

2 G/H top of gunwale height – increase tolerance

We never heard the french manufacturer (Lanaverre, Fountaine-Pajot, Barat, Le Haras, SYGA, Avenir Composites, etc.) complain to these dimensions. We didn't remember ourself to have controlled these dimensions out of tolerances, including Galetti (plywood made). Only the 5 last Fountaine Pajot built for the World 86 were out of tolerance.

Originally this tolerance was +/- 15mm. It has been enlarged one time to +/- 25mm without passing the world assembly.

The top of gunwale is usually measured at 45mm, allowed the enlargement leads to a top of gunwale comprised between 15mm and 75mm.

Increasing this tolerance doesn't change the hull itself but only the top of Gunwale height and by consequences the tank height, isn't it?

We are against this modification.

3 Keelband height – increase tolerance

The modification of the keelband height has more impacts than mentioned in the proposals. The keelband modification change the global hull shape, the exterior of the keelband has two impacts:

- The exterior of the keelband is controlled on 4 points: 212 mm at station (11), 115/130 at station (9), 73/88 at station (6) and 168 mm at station (3). The-station (3) is a surface of reference for the measurer who put the stem–template and the baseline for the whole hull measurement. The increase of the keelband tolerance leads to provide more liberty to the rocker.
- The template for the control at the location (9), (6), and (3) have to be placed on the keelband. Changing the height from 3 to 6mm have a big impact on the hull shape. **Increasing the keelband height leads to provide more freedom on the hull shape.**
- The controles show that the keelband height is rarely over 3mm. Sometime it approach 4mm along the centerboard case.

Furthermore we don't understand the rational which says that increasing the keelband height will improve the manufacturability of the hull. The best practices for the shape

molded are based on the most regular form as possible. So increasing the keelband height goes in the wrong direction. If we want to improve the manufacturability of the hull the clever solution is to increase the 3mm radius which has also the benefit to no change the surface of reference. As explained above the keelband is a reference to place the template and to control the hull. Allowed increasing the keel band has a huge impact on the hull shape.

We are strongly against this tolerance enlargement.

4 Transom – allow additional buoyancy

We understand the security improvement but we are not sure that the 5o5 requires a fourth tank. We also didn't understand how it will make easier the assembly process. 2 lengths of 250mm gluing will be hidden and a glue bead is added. The rudder fixation is a high sensible point of the 5o5, transform the transom in bulkheads will decrease the access to the fixation.

Contrary to the paragraph 1 the control of the hull is more complicated with the measuring book modification. Furthermore the class hasn't to adapt the rules to the designer but the designer to respect the rules. There is no need to increase the buoyancy of the boat.

We suspect the modification goal is to increase the torsional stiffness of the boat, could you confirm this point? In our opinion the improvement is minor and will have an impact on the mass repartition.

5 Jib/spi cloth - require minimum weight

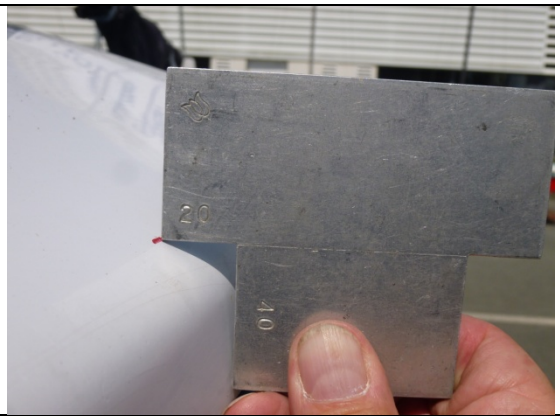
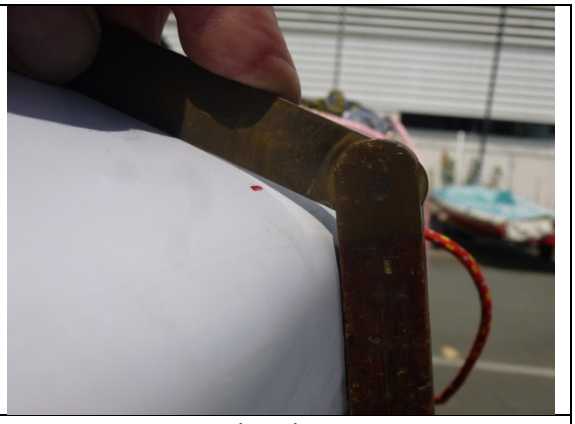
The main sail and jib rules are 60 years old, the competitor may freely choose the materials since the beginning of the class.:

- To keep the rule class spirit, I think that the racer have to keep the choice to buy the sails adapted to their need. The 470 spirit is completely different, everything is measured and checked (centerboards, rudders, etc.)
- If the aim is to increase the lifespan of the sails then the objective is to reduce the sailors costs. In this sense why doesn't apply the same strategy to the main sail which cost the jib and the spinnaker combined?

In case of application, the weight of the cloth can't be verified by the measurer. Only the thickness can be measured, the only things is to determine where the measure must be done

6 Top of gunwale - sheerline

The top of gunwale is clearly defined by a point placed at 20mm inside the extreme edge of the hull. All the measurers can make a such template. The diagram "Enlarged detail of gunwale and template" shows that the top of gunwale is different than the sheerline, the designation swap will only bring confusion. Furthermore the European standard ISO8666 provide a definition more robust than the one provided by the ISAF.

	
Top of gunwale	Sheerline