



Royal Ocean Racing Club Rating Office

What is the Boat Factor?

How is IRC different from other rating rules? It still uses measured data, but three unique Factors help to recognise genuine dual-purpose boats and rate them fairly. Mike Urwin explains:

Historically however, rating rules such as IOR, and the RORC Rule before that, calculated ratings based wholly on each boat's measured data. There was thus no incentive (actually a disincentive) for designers and owners to include anything in or on the boat which was not directly beneficial to speed or rating. The result? Wholly stripped out boats with accommodation to satisfy the requirements of the rule (or relevant safety regulations) and nothing more. Boats with no pretension to being other than pure race boats and with no after life. Rigs that fell down if you blinked. Boats designed specifically to the optimum configuration of the rule with no regard for any other considerations. No production boats. No cruiser/racers.

This in its turn lead to more prescriptive rules on fitout and other aspects of the rules. Which in turn lead to increasingly inventive solutions to satisfy the letter of the law. In parallel came attempts to mathematically address such as pitching moment and its effect on speed. Sadly none of this really worked.

So, IRC is still a rating rule, but how is it different? And how does that benefit owners?

Under IRC, TCCs are still calculated using a boat's measurements. Anything that is directly measured is used as part of the wholly mathematical calculation. But that is not the end of the story. There are also the three IRC Factors: Rig, Overhang, and Hull. These look in more detail at the boat, its nature and its design. They might best be summarised as addressing the 'efficiency' of the boat as a whole taking into account elements of the boat which are not directly rated or which are in effect unmeasurable. Taken as a whole, they might perhaps best be summarised as 'Boat Factor'. Their effect is then to modify the final calculated TCC.

I cannot go into the finite detail of how each of these is assessed; that would be to compromise IRC confidentiality. I can however talk in general terms.

The starting point is to be clear that the two rating offices use objective agreed methodologies for assessing each factor. The second point to note is that we are essentially limited to the information contained on the application form submitted by each owner plus any other information supplied. Apart therefore from the obvious physical dimensions and weights, we know what the boat is built from, the general hull form, basic keel and rudder configuration, fitout, and rig configuration. On occasions, and particularly with new one-off designs, we additionally ask for drawings or pictures of the boat including hull appendages, rig and interior.

Using the defined methodologies for each factor, the information supplied is combined to arrive at our assessments and those are plugged into the rating calculation.

Do our assessments ever change? Not often, but sometimes. This is generally when the information originally supplied has been skimpy and we have therefore taken a conservative view. Subsequent greater detail may produce a slightly different answer. It may also be because the boat has been modified. A new keel for instance, or changes to fitout. Note however that we will not generally run trial certificates based on 'what will be the effect on hull factor of adding fixed berths? And a table? And ...etc? Owners should fit the boat out to suit their individual purposes and we will then assess and rate that.

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Changes in assessment methodology also happen from time to time which may affect existing boats. Most recently, application forms this year asked for information on the materials used in a boat's accommodation. The IRC Technical Committee also has a current ongoing project on keels. Some of this has already been implemented; more will be in 2007.

So, can an owner influence the assessment of any of the IRC factors for his boat? Directly no. However we can only ever work with the information we hold. For well known production boats, this will be good and complete. For smaller production runs, and for variants of standard designs, perhaps less so. For one-offs, we are wholly in the hands of the past and present owners. So, tell us! Send us photos. The more we know, the better our assessments can be. And if anything changes, tell us! And if you are not sure, ask!

The benefits to owners? The ability to take a production cruiser/racer and compete with the knowledge that the cruising features in the design are recognised. And that in turn encourages boat builders to produce genuine dual purpose boats which produces market competition and goes some way to keeping prices under control. Quite apart from the relatively healthier second hand value of a cruiser/racer as opposed to a one-off race boat.

Mike Urwin

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