

BOTTOM LINE

Rubbing down the hull, profiling the keel fin and fairing all the skin fittings seemed like a good idea when you were on the edge of greatness during the summer racing season. The trouble is now the boat's out of the water and ready to be worked on, there's more darkness than light and the temperature struggles to make double figures.

Suddenly it's more difficult to rally your crew for a weekend spent elbow deep in buckets of cloudy cold water as they rub the fingerprints off while chilly

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streams of water dribble up their sleeves. Not even the bribe of free beer for the weekend seems to do the trick.

But there might be a simpler way to improve your performance next season. How about checking your IRC rating?

According to Mike Urwin of the RORC Rating Office, more than 50 per cent of certificate holders are rated for sail area they don't have. Over the next two issues we'll be taking a close look at what you can do to improve your performance without spending weekends smoothing your bottom – although that will always help.

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Rick Tomlinson/Cowes Week

IMPROVE YOUR IRC RATING

Are you throwing performance away? What do the numbers mean on your IRC certificate and what do they tell you about your boat and that of your competition? In the first of a two-part series, Matthew Sheahan explains how you can improve your boat's performance using little more than a tape measure and a pen

The easiest way to improve your rating is to check the data you've given us," says Rating Office technical director Mike Urwin. "My guess is that more than 50 per cent of the IRC fleet worldwide is rated for sail area they don't actually have. People spend hours rubbing down the bottom of their boat to get a perfect finish, which is all well and good, but often a quicker and more effective way to improve performance is to make sure, for instance, that the black bands are in the right place on the mast and boom."

'Garbage in, garbage out' – never has an expression been truer than for an IRC certificate. The UNCL Centre de Calcul in Paris and the Royal Ocean Racing Club's Rating Office, the IRC administrators, deal with over 7,000 certificates from more than 40 countries and see a number of recurrent issues. The trouble is that many owners and crews do not know how to interpret the data on the certificate or how to assess whether they are throwing away performance needlessly. After all, who other than



designers and sailmakers, really knows what factors like 'MUW' and 'HHW' mean and whether they are costing you valuable seconds on the water? Is 'P' a realistic figure for your rig and does 'BO' say more about the state of your crew, or your boat?

Ironically, the two main original criticisms of IRC, namely the secrecy of the formula and the simplicity of the user-declared input, have actually turned out to be major factors in the success of a rule that started out as a simple means of handicapping cruiser-racers. However, the secretive nature of the rule has led some to believe that there is little they can do to improve their rating. But this is often not the case. You just need to know how to present your boat in its best light.

Too high a rating?

Checking that the boat you are racing has the same dimensions as the one you are rated for is at the heart of a good handicap. And while it may sound too simple to be true, Urwin reckons that in a typical IRC handicap fleet, his team could usually spot a good number of boats that are paying an unnecessary price for their handicap just by the way they look on the water.

Another way to crosscheck your data is to take a look at your close competitors. Owners can buy copy certificates via the Rating Office website at £10 each, but there are limits to how many you can get.

However, you can also check the basic data of all IRC certificates online for free by clicking on 'race-organisation' and selecting 'on-line-tcc-listings'.

Finally, if you have an Endorsed certificate, owner measurement will remove this status unless any remeasurement is done by a measurer or, in the case of sails, an approved sailmaker.

This could be the start of a new lease of life for your boat.

www.ircrating.org

The new IRC rating website offers plenty of useful links and information, in particular:

Measurement manual – provides chapter and verse on how to take measurements.

PDF Portfolio – This downloadable document provides hyperlinks between IRC Rule definitions and the equipment rules of sailing – for example, clicking on the term 'P' in the rule will take you to the definition

Next month we take a look at the certificate in more detail

For online links and additional material see www.yachtingworld.com/performance-world

4 ways to reduce your rating

Here are four key ways to reduce your rating, all of which stem from the same basic principle – what did you declare to the Rating Office? Did you present specific data for your boat, or was the data taken from the Rating Office's database or another source?

R Tomlinson



Two typical rating certificates, for two very different boats. Above: *Ran 2* is a Judel Vrolijk grand-prix racer and *Incognito* (below) a Bénéteau First 40.7

J Abery



1. Mainsail – is it really that big?

Sails shrink: fact. So when was the last time you checked your mainsail against the black bands on the mast and the boom? If the sail doesn't reach the bands, you will be paying for more sail area than you've actually got.

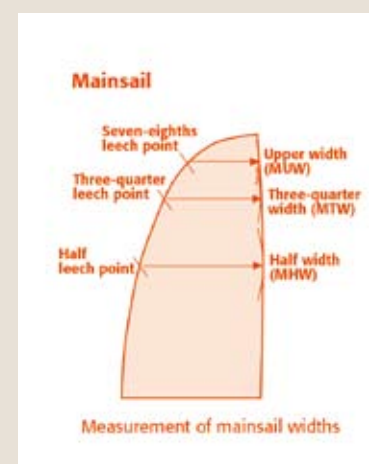
To check the measurement, hoist the mainsail to its normal max position. Move the black bands to suit, then measure 'P' and 'E'.

Don't be tempted to measure the luff and foot of the mainsail, it's not the same thing and you will most likely end up with the wrong dimension. 'P' and 'E' are spar measurements.

Also check the mainsail width measurements, MHW, MTW and MUW. MHW is measured from the half height point on the leech (fold the head to the clew and mark the fold) to the nearest point on the luff.

MTW and MUW are measured from the three-quarter and seven-eighths leech points (keep folding the sail). If they are smaller than those on your certificate, you may be in for a reduction.

Note: The defaults for these three values are 22 per cent, 38 per cent and 65 per cent of 'E'. They will never be taken as less than 12.5 per cent, 25 per cent and 50 per cent of E by the Rating Office, so work this out before you get excited!



2. Headsail

The same applies to headsails, although there is less chance of overpaying on handicap by accident (except quite often luff length LL), as jibs are usually triangular and don't have roaches. First, did you tell the Rating Office the dimensions of the sail or have they used standard information? It is always worth remeasuring headsails

as they will shrink. And it is particularly important to measure the luff of the sail.

Note:
• HHW will never be less than 50 per cent of LP
• HTW will never be less than 25 per cent of LP

Some owners choose to re-rate their boats with smaller headsails, a move that will usually reduce the handicap. If you are sure you

will be sailing in strong enough breezes that you won't need your No 1 overlapping headsail, this approach may work out.

But be aware that if the breeze goes light and the sea state builds, particularly if your boat is on the heavy side, you may find yourself struggling for power and pace, beyond the credit that your new, lower handicap provides.

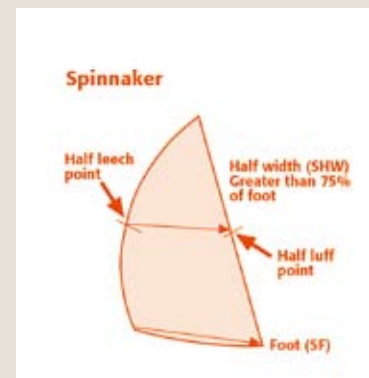


3. Spinnakers

These sails don't shrink to the same degree as mainsails and

headsails, but they do move and change shape. Again, it is worthwhile having the sail

remeasured and when it is, make sure it is absolutely dry. A damp sail is a big sail.



4. Weight and displacement

"Our experience is that a typical production 40-footer can vary in weight by up to a tonne," says Urwin. "Naturally that's an extreme, but a 15 per cent variation is not uncommon, so it's well worth getting your boat weighed.

"If you don't want to go to the expense of weighing, it's still worth looking at whether your boat has any extras beyond those listed on the standard specification, or perhaps you've added items of your own."

Extra batteries, heating, hot water, a genset, a charger for your VHF, a set of rope bags in the cockpit and fitting a chartplotter are examples of

small items that could add up to a significant weight.

"Tell us with evidence of the weights. We will normally add an allowance to the boat weight. But please be reasonable – 2kg is not going to make any difference, 50kg probably will." A word of warning here – the Rating Office has a good feel for what items really weigh!

Boats are often 100kg heavier on the water than when they first came out of their shrinkwrap and if your boat was only weighed when it was new, weighing it a season or two down the line could provide a pleasant surprise on the handicap.

Note: if you are having your boat weighed, make sure it is

in a fit state for weighing before the measurer turns up. He or she won't take kindly to having to empty your boat for you and could well charge.

The 'Empty Weight', now termed simply 'Boat Weight' from 2010, excludes all the kit that might usually be aboard the boat and that wouldn't normally be screwed to it. Think of it as turning the boat upside-down and shaking all the loose items out. For example, flares would come out, but any brackets that hold them would stay.

IRC Displacement is a Rating Office-calculated value that represents a figure close to that of the sailing displacement and therefore includes crew and their gear.



J Corby