

ISAF International A-Class Catamaran - Measurers Guide to Completion of the Measurement Form

All A Division Catamarans shall have a valid measurement form and for all yachts measured after 1st January 1998 it shall be on the latest style form dated April 1997. This form is composed of four separate areas that are largely self-explanatory. The following notes should assist in their understanding.

Mast & Boom Measurement Form

The purpose of this measurement is to find half the total area of the mast and any mast base fitting attached. On a straight section (i.e. not tapered) it is simply the length L x half the mast girth. The Measurement and Calculation of Sail Area instructions define girth as follows:

"The girth measurement shall be taken as the distance from the centreline round the surface of the spar to the same point on the centreline. The resultant dimension shall be divided by two to give the half girth measurement."

Should mast be tapered extra measurement U1 & T need to be taken and the formulae on the measurement certificate utilised. Black band measurements L1 & L2 play no part in the mast measurement at this stage.

Boom measurement is only utilized if the profile height of the boom is more than 1.5 of the width.

Hull Measurement

This area is self explanatory with only two measurements needed, that is, width & length.

Things to look for with overall length are:

If the width of a rudder within 153mm (6 inches) of the bottom of the hull is more than 76mm (3 inches) the length measurement needs to go to the aftermost point of the rudder.

With the width, measurement is at the widest point of the hulls; this may be at some point down the sides of the hulls, especially if hulls are angled. It may also be possible that the maximum width is at bottom of the centreboards when in the fully down position. See the diagram above.

Sail Measurement Form

When undertaking the sail measurement the following points should be noted.

Sail to be measured on a flat surface and laid out in terms of IYRU Measurement & Calculation of Sail Area Instructions, that is:

"With battens set in their pockets the sail shall be pegged out on a flat surface with just sufficient tension to remove waves or wrinkles from the edge rounds and to spread the sail, as far as possible, substantially flat. Once the sail has been pegged out in this way all the required measurements shall be taken and no alterations to the tensions shall be made."

Luff length A is the maximum distance from the head to the tack of the sail. It is taken on the inside of the boltrope, which is not included in any measurement.

Base length P is a measurement from the clew to a point at 90 degrees to A.

Measurements M, F, K, D and H are all made at 90 degrees to their respective lines. All are to be the maximum distance that can be taken.

General Calculation Form

This form brings all the measurements together and all that is required is to transpose measurements from the other forms. On this page it allows you to calculate the theoretical Black Band distance that will allow a maximum sail area of 13.94 square metres for each sail that the boat may have. It should be noted that black bands should be on the mast and form part of the measurement requirements.

The weight of the boat and any correcting weights are also listed on this page.

The weight of the boat consists of all items associated with the boat in full sailing trim. It does not include such removable things as shackle keys, water bottles, spare rope, compass etc.

The boat must be weighed in a dry condition and any weights attached to bring the boat to a minimum weight of 75 kilograms must be permanently affixed and their weight duly noted on this page.