

RG-65 CLASS
MEASUREMENT RULES



2006

"RG-65" Class Measurement Rules.

The "RG-65" is a Radio Controlled monohull development class, where all is allowed except what is specifically prohibited by these rules of measurement.

MEASUREMENT RULES

1 GENERAL

1.1 Purpose of the measurement.

It is intention of these Rules to give ample freedom to design and build R/C sailing racing models whose length will be of 65/- 0,5 cm, with an rig height of up to 110 cm and a maximum sail area of 2250 cm².

The Class "RG-65" is a Development Class, therefore everything is permitted except what specifically it is not prohibited in these Rules.

Measuring Units.

All dimensions will be measured in centimetres, with an accuracy of 1 (one) decimal (that is equivalent measuring in millimetres), and the final result of calculations of surface will be rounded to the nearest cm².

Maximuns and minimuns are absolute values, without tolerance.

Graphic description.

Appendices 1, 2, 3 and 4 are inseparable part of these Rules and describe them graphically.

2 ADMINISTRATION

In accordance with the Standards of the RG65-ICA.

3 HULL

3.1 General

The "RG-65" will be a monohull.

3.2 Hull

In each section of hull, there will be no point of underwater body below 0.3 cm another point of the same section located closer to the centreline axis of the hull.

On the bow and from the deck, there will be a fender protecting from collisions of all the bow height, with a length of 0.5 +/- 0.1 cm by 0.3 cm of width at least, of elastomeric material (flexible gum, elastic foam, etc).

4 KEEL, BALLAST and RUDDER.

4.1 Keel.

The keel will have to be located in the center line of the hull, and could not be mobile. However it can be removable to facilitate the transport of the model.

4.2 Rudder.

The rudder will be located in the center line of the hull, and will move only on one axis installed in the center line of the hull, and it shall not extend outside the overall length of the hull.

5 RIG.

5.1 Definición.

The rig is formed for the spars with their fittings, standing rigging and sails.

A Vane or wind direction indicator does not part of the rig.

5.2 General.

No part of rig will extend beyond the bow nor beyond the stern of the boat nor to more than 110 cm high above to the top of the deck.

The boat shall race while carrying no more than 2250 cm² of sails in its rigs.

The boat could be equipped with up to 3 (three) set of sails **A, B and/or C indivisible**, which each do not exceed 2250 cm² of total surface.

The dimensions and surfaces of each sail will be declared in writing before beginning the Races of the day or the championship, accompanied by a silhouette of each sail drawn out of paper, scale 1:1.

5.3 Spars.

All the spars must have a section smaller than a circle 1.2 cm in diameter.

Fittings constituting a definitely local extension (goosenackers, hauls low, rigging of the stays, etc.) does not form part of the section of the spars.

6 SAILS.

6.1 Measure.

For the calculation of sail area, each sail will be divided into trapezoids and/or triangles, whose surfaces must be added or be cut off.

The Trapezoids or Triangles shall include sail fabric. When the corners of the sail are rounded with abrupt curves, the corner of the enveloping figure is considered with the intersection of the natural prolongations on the sides of the figure used.

If the edge of the sail forms an arc of more than 0.2 cm on the side of the trapezoid or triangle used to measure it, the segment of the resulting arc will be included in the surface calculation.

The partial surfaces corresponding to divisions will be calculated as follows:

a. Simple trapezoids: $(B_0 + B_1) * h / 2$

b. Contiguous trapezoids, all the same height:: $(B_0/2 + B_1 + \dots + B_n/2) * h$

c. Triangles: $B_t * H_t / 2$

d. Segments of Arc: $C * f / 1.5$

Where: B_0, B_1, \dots, B_n = Width of the trapezoids

h = Height of the trapezoids

B_t = Base of the triangle

C = Cord of the segment of arc

f = Arrow of the segment of arc

6.2 Checking the dimensions.

Each sail will have permanent marks indicating the extremes and special points of the divisions used for its surface calculation.

Dimensions are measured and /or verified edge to edge on the cloth.

The minimum tension will be applied to the sails as necessary to eliminate wrinkles along the dimension verified.

When checking declared dimensions, a tolerance of 0.5 cm will be accepted in total measurement (clew point to tack point to head point) , and 0.2 cm in partial measurements (bases, heights, arrows of subdivisions).

6.3 Identifications marks.

The boat number will be marked mid-height on each sail, starboard above port side, with clearly visible numbers at least 10 cm high of and 1 cm thick.

The measured surface of each sail will be marked in an indelible way close to its tack point.

The boats of the Class shall exhibit the Class insignia on their sails.

The Class Insignia will be placed in the superior quarter of the main sail in the upper part starboard and the lower part port side with a prescribed measurement of 4 cm by 4.5 cm.

7 REMOTE CONTROL EQUIPMENT.

7.1 General.

Radio systems with 2 (two) control functions shall be used. One function will act only on the rudder, and the other will act only on the rig.

During the races of the day, one will use only the declared rigs, one keel (with its ballast) and one rudder.

7.2 Replacements.

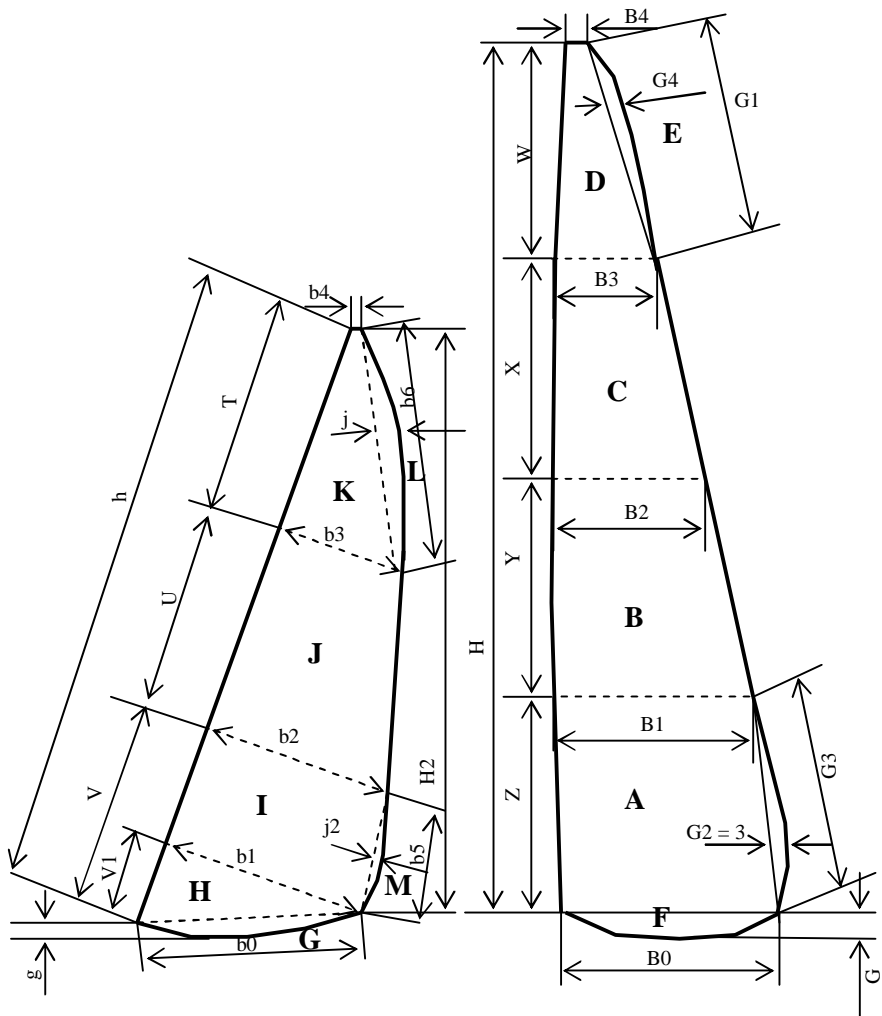
No component of the boat nor its equipment, except the batteries of the equipment of radio, shall be replaced during the races of the day, except if the element to be replaced is broken or lost during the event and that the ODD considers that this breakage or loss is really fortuitous and accidental.

There is no restriction about replacement of RC equipment batteries during the races of the day.

tura o pérdida fue realmente fortuita y accidental.

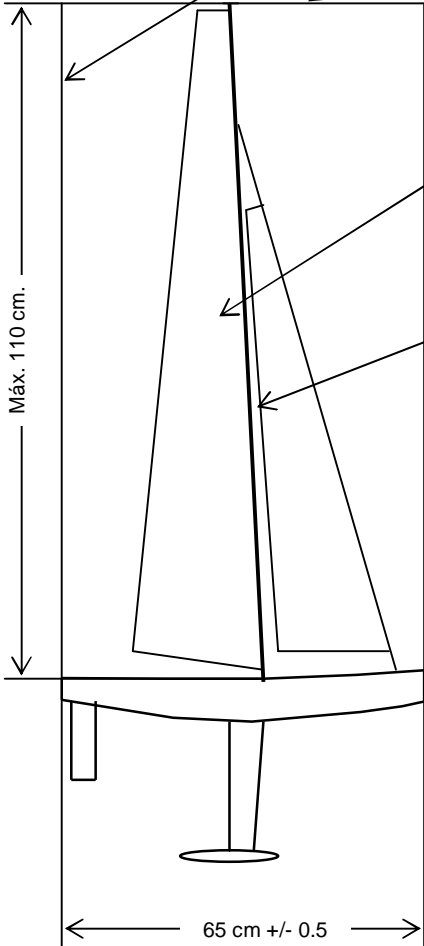
No hay restricciones para reemplazar las baterías del equipo de radio durante las Regatas del Día.

EXAMPLE FOR MEASUREMENT OF RG-65 SAILS



$G = g \times b_0 / 1.5$	$A = [(B_0 + B_1) \times Z] / 2$
$H = V_1 \times b_1 / 2$	$B = [(B_1 + B_2) \times Y] / 2$
$I = [(b_1 + b_2) \times (V - V_1)] / 2$	$C = [(B_2 + B_3) \times X] / 2$
$J = [(b_2 + b_3) \times U] / 2$	$D = [(B_3 + B_4) \times W] / 2$
$K = [(b_2 + b_4) \times T] / 2$	$E = (G_4 \times G_1) / 1.5$
$L = (j \times b_6) / 1.5$	$F = (B_0 \times G) / 1.5$
$M = (j_2 \times b_5) / 1.5$	
$JIB\ SAIL = G + H + I + J + K + L + M$	$MAIN\ SAIL = A + B + C + D + E + F$
$TOTAL\ SURFACE = JIB\ SAIL + MAIN\ SAIL$	

APPENDICE 1

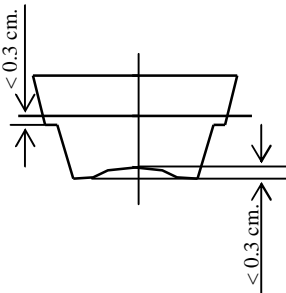


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APPENDICE 2

If the edge of the sail forms an arc of more than 0.2 cm on the side of the trapezoid or triangle used to measure it, the segment of the resulting arc will be included in the surface calculation.

Segments of Arc:
 $C * f / 1.5$

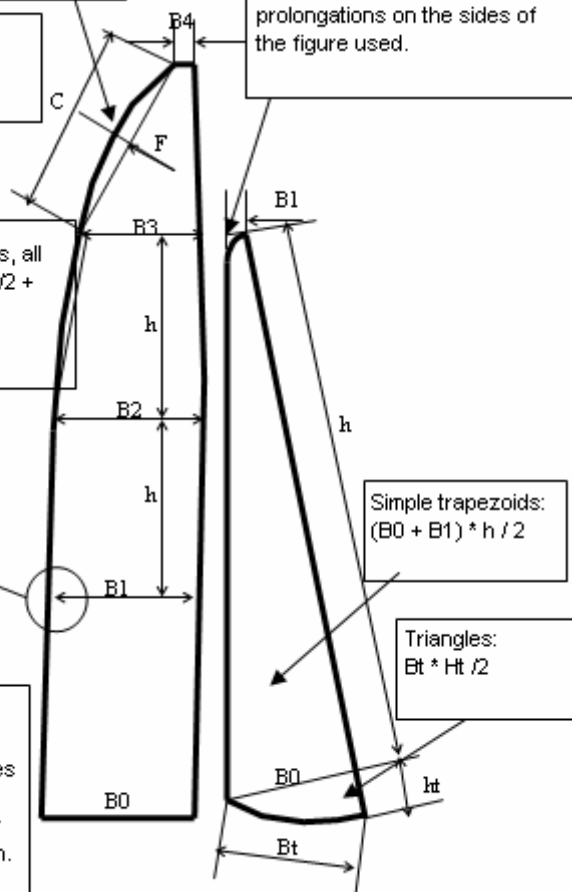
Contiguous trapezoids, all the same height:
 $(B0/2 + B1 + \dots + Bn/2) * h$

MARK



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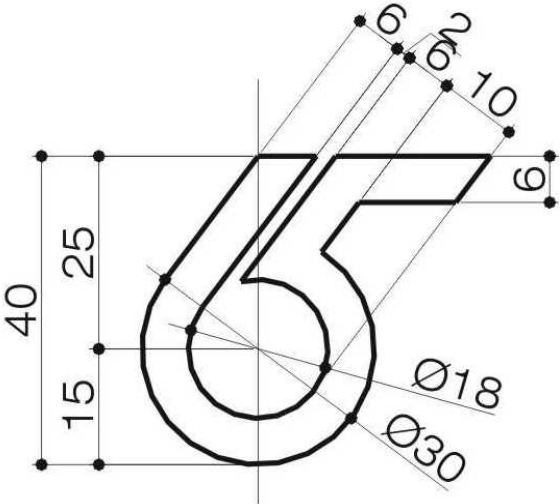
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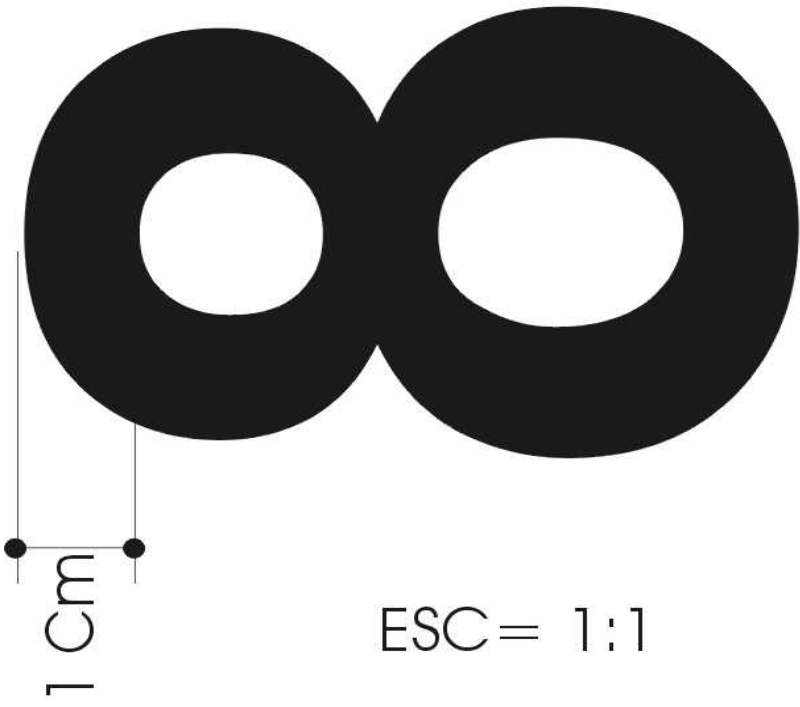
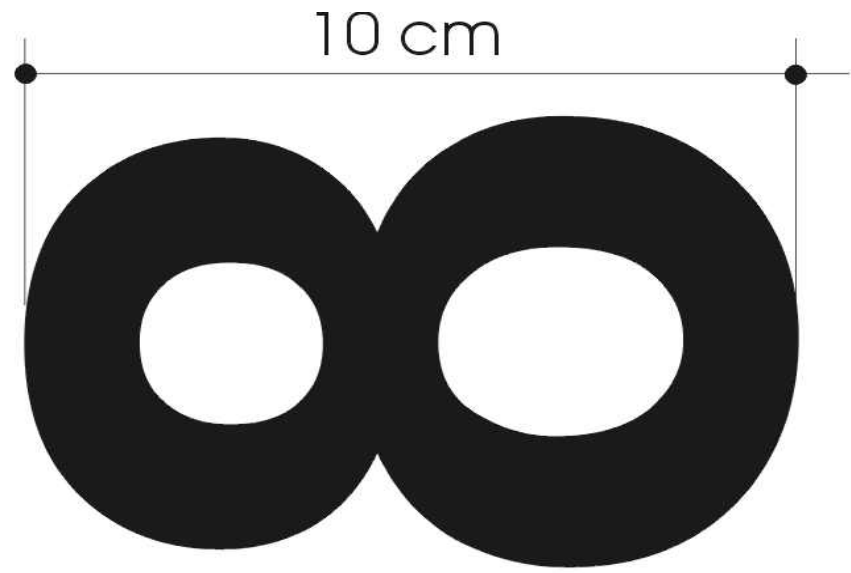


Simple trapezoids:
 $(B0 + B1) * h / 2$

Triangles:
 $Bt * ht / 2$

APPENDICE 3





APPENDICE 4



ESC = 1:1