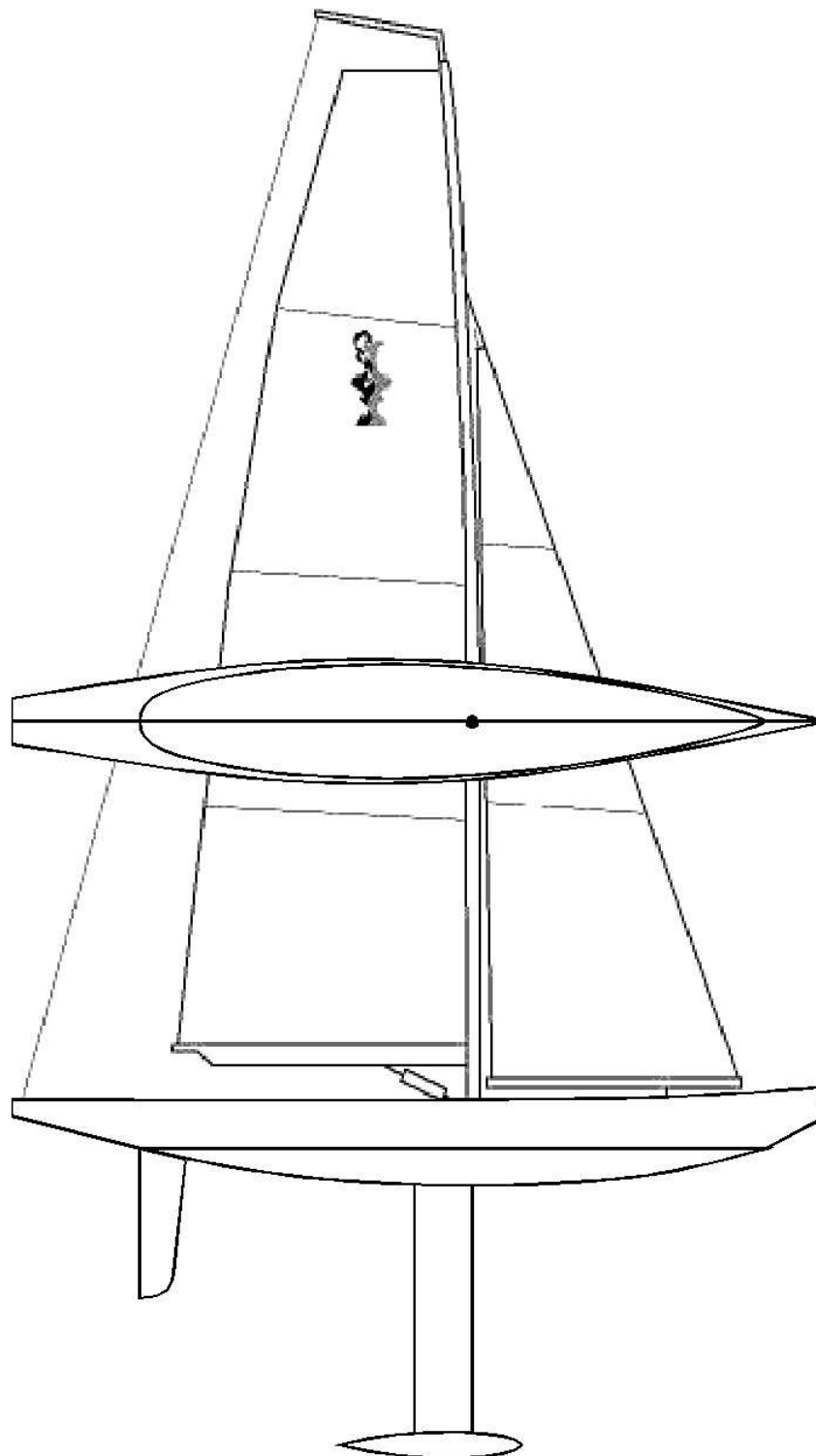


IACC 120 CUP

CLASS RULES

2012 issue 2.0



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PART I – AMMINISTRATION

Section A – General Conditions

A.1 GENERAL

This Class Rules aims to let sailing and racing RC Scale Models that reproduces similar boats as employed under the actual and previous AMERICA CUP Rules from AC1 to AC5 included. The scale used is 1:20. This scale factor obviously is not applicable to the hull displacement. The aesthetic apperance and graphics shall be as close as possible to the real AC boats. This point will of major importance for the acceptability of the models in accordance to this Rule . In other words, the educated spectator shall be capable to distinguish a Luna Rossa from an Oracle or an Alinghi. The modeler shall do his best to decorate his boat, the hull color shall be the same as one of the boat to be reppresented of the America Cup. The acceptance of the boat is agreed only if the boat is unequivocably inspired to the IACC Class. The hull shall have overhang and rake as close as to the ones of the IACC boats .

A.1.1 AUTHORITY AND RESPONSIBILITY

Each Club using the AC120 Class is responsible for the assurance of this Class Rules observations. The Regional Clubs shall designate a responsible Member for this purpose. Each owner will be first of all responsible for this Class Rules observation. **In case of errors of translation, the correct Class Rule is the Italian version.**

A.1.2 PUBBLICITY

The boat and the decorations shall call the IACC Boat . Each owner is nevertheless responsible for any infringement of commercial laws forbidding the use of logos and marks in case of trade of the boat. Commercial Trading is discouraged without previous agreements of company represented in the logos and marks. Similar observation apply for the Class Insigna.

Section B – Boat Eligibility

B.1 CERTIFICATE

In order to be elected for racing, the Boat shall comply with the current Class Rules
The Boat shall have a valid Certificate released by the designated Club's Member that, in accordance with other Clubs, shall coordinate and maintains a chronological register. The Certificate Number shall appears on the deck . (sticker or paint)

B.1.2 Every boats made/in construction before these rules (following R.1.5 and previous) will be already in rule.

B.2 CLASS ASSOCIATION STICKER

A sticker or any graphic method representation of the Class Insigna, shall appears clearly on the top of the Main Sail

PART II – REQUIREMENTS AND LIMITATIONS

During Racing, the Boat shall be in conformance with the Class Rules as referred in Part II. Check to establish conformance to Section C, could be performed at any time of the Racing Day. The Rules of PART II are “**Closed Class Rules**”

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

The registered boat shall be a **Monohull** type . The boat shall either comply with the **Class Rules** in force at the time of its initial **fundamental measurement** or comply with the current **Class Rules**

C.2 CREW (SKIPPER)

C.2.1 LIMITATIONS

The **Crew** shall be composed by a single person for all the duration of the **Racing Time**

C.3 BOAT

C.3.1 DIMENSIONS

With the Boat floating in fresh waters :

LOA (with soft bumper included) **1150 mm to 1200 mm +/- 10mm**
LWL Up to a maximum of **1000 mm +/- 3%**
Max Beam: 290 mm Min Beam: 165 mm

The official measuring for the boat is floated in fresh water, ready to sail, with one elastic around the bow and one elastic around the stern; the elastics are shifted to the point where they touch the water. At this point the boat is grounded in a template of 1030 mm and the distance between the elastics should be equal to or less than 1030 mm. If a boat is heavier than 4500 g, during the official measuring the boat will use a lighter bulb so that the boat weights 4500 g: if it falls within the waterline length 1030 mm, the boat is in good standing and in racing it will use its original bulb heavier.

C.3.2 WEIGHT

The minimum weight, in dry conditions, shall be : **4500 g** (wind flame excluded)

C.3.3 CORRECTOR WEGHT(S)

Additional weights, to reach the minimum weight shall be installed inside the hull or on deck at the discretion of the Crew/Skipper.

C.4 HULL

C.4.1 IDENTIFICATION

Each boat shall carry a dedicated and single Number released by one of the Regional Club Authority also designated at National level for the Chronology sequence.

C.4.2 MAINTENANCE

It is allowed normal maintenance to the boat as to remove Batteries and accessories of the Radio Control assembly and substitute adhesive covers. Washing, painting, shining , etc. without the need for re-certification

C.4.3 RADIO CONTROL EQUIPMENT

USE

- (1) The servo rudder control unit shall be limited to the **rudder** only.
- (2) The Winch servo shall be used exclusively for the control of the **Main and Jib sheets**.
- (3) For those who are intending to use a **genoa**, it is allowed to employ a dedicated additional servo to control the **genoa sheets only**.
- (4) No radio transmission from the boat shall be made.

C.5 HULL APPENDAGES

C.5.1 LIMITATIONS

The appendages are composed by one Fin (two, if the real ACC boat has two keels as NZL-20 for example)/Bulb assembly (two bulbs [with a total weight using two keels of 3000 g] if the real boat has two bulbs) and by one Rudder.

The Fin(s)/Bulb(s) assembly shall be dismountable in order to permit control of weight specifications.

During a race, only one Fin(s)/Bulb(s) assembly and one Rudder are permitted, except in case of loss or not repairable damage during navigation. The substitution shall be approved by the Race Committee.

The Fin/Bulb assembly length shall be : **420 mm maximum**

From the bottom of the hull to the bottom of the bulb

C.5.2 USE

- (a) The Fin shall not move or rotate with respect of the boat axes except for a normal design deflection
- (b) The appendages shall not protrude over the LOA limits

C.5.3 WEIGHTS

Fin/ BULB (complete)	3000 g maximum
Rudder (including axis)	75 g maximum

C.6 RIG

C.6.1 LIMITATIONS

During a race, it can be authorised one mast, one boom for the main and one boom for the Jib/head sail (the genua for the user) for each one of the two Rigs, except in case of loss or unrepairable damage. The substitution shall be approved by the Race Committee.

The use of a **SwingRig is forbidden**.

Automatic/mechanical internal control of main or headsail are forbidden (see butterfly).

C.6.2 USE

Any Rig element shall not overrang the boat lenght limits

C.6.3 ADDED WEIGHT

(a) Corrector weights may be positioned in and /or on a Mast spar below the lover point mark

(b) Such weights may be removed or added at any time in accordance with **C.3.1** and **C.3.2**.

C.7 SAILS

C.7.1 MAINTENANCE

Routine maintenance such as replacement of battens or patching over damaged areas is permitted without re-measurement and re-**Certification**.

C.7.2 LIMITATIONS

Except when a Sail has been lost or damaged beyond repair, no more then one mainsails and one headsail, for each Rig , shall be used during a race event. Replacement may be approved only by the Race Committee.

C.7.2.1 SAIL AREA

RIG 1	80 dm²	maximum
	73 dm²	minimum
RIG 2	60 dm²	maximum
Main Top width	60 mm to 200 mm.	

C.7.3 IDENTIFICATION

The Class Insigna is mandatory and shall appears on the main

C.7.4 For those who reproduces the full graphics of an IACC Boat on the sails it will authorised to use the originals symbols and numbers, nevertheless it will be necessary to verify, before the start of the race, that in case of identical decorations used by differents boats, a different colored sticker or flag shall be positioned on the mainsail top.

C.7.5 USE

(a) MAINSAIL

The LUFF shall be : **1750 mm maximum**

(b) HEADSAIL

The Headsail leech length **shall not** be greater than **80%** of Mainsail Luff lenght

(c) GENOA

As above for the Headsail.

Section D – HULL

D.1 GENERAL

D.1.1 RULES

The boat shall either comply with the **Class Rules** in force at the time of its initial **fundamental measurement** or comply with the current **Class Rules**.

D.1.2 CERTIFICATION

See rule **B.1.1**

D.2 HULL

D.2.1 MATERIALS

No limitations are defined for the use of materials employed for the construction Except that, materials shall not be of density higher than 11300kg/m³ (Lead)

D.2.2 CONSTRUCTION

The construction is unrestricted except for the following :

- (a) The Hull shall be a **Monohull** type
- (b) Except for trunking for the Fin and Rudder, the hull shall not have :
 - (1) voids in the waterplane and/or the underwater profile
 - (2) hollows in the plan view and/or the underwater profile that exceed 3 mm
 - (3) transverse hollows in the undersurface of the Hull that exceed 3 mm when tested parallel to the waterplane.
- (c) the forward 10mm of the Hull shall be of elastomeric material
- (d) the Hull shall have two marks at the waterplane level, one in front and the other to the back. These marks are used for the LWL length measurement.
- (e) The max beam must be always measured on the deck.
- (f) The hull must have minimum 45 mm overhang at the bow and 65 mm at the stern measured using the elastics and template system (see point C.3.1)
- (g) The bridge must be flat or curved with a maximum of 5 mm. Behind the mainmast is required a cockpit with a minimum depth of 20 mm. The line of contact between the bridge and the hull can have a round fillet of a diameter of 5 mm or it can be 45° sloped only if also present in the real boat.
- (h) The width of the stern must be between 30% and 62% of the maximum beam and should not be higher than 120 mm and should not be lower than 70 mm.

D.2.3 FITTINGS

The fitting are unrestricted except that :

- (a) The fitting shall not project outboard of the Hull shell or the deck

D.2.4 REMOTE CONTROL EQUIPMENT

The following is permitted:

- (1) One receiver
- (2) One rudder servo
- (3) One servo for sheets control (main & jib)

- (4) One (additional) servo for Genua sheets control
- (5) Battery cells assembled in one or more packs
- (6) Electrical cables, connectors and switches

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) **Keel** is composed of a **Fin** and a **Bulb** (two keels and two bulbs only if the real boat has two)
- (b) **Rudder**

E.2 GENERAL

E.2.1 RULES

Hull Appendages shall comply with these Class Rules

E.3 KEEL AND RUDDER

E.3.1 MATERIALS

As per **D.2.1**

E.3.2 BULB

For **ecological and biological protection**, the bulb shall be coated with composite materials or painted.

E.3.3 CONSTRUCTION

The construction is unrestricted except for :

- (a) The Keel and Rudder shall be removable from the Hull.
- (b) The Keel and Rudder shall not :
 - (1) be connected or linked together (it is allowed only in if two keels are used)
 - (2) be articulated (it is allowed only in if two keels are used)
 - (3) have openings through which water could flow when in use

Section F – RIG

F.1 GENERAL

F.1.1 RULES

The RIG shall comply with the present Class Rules

F.1.2 LIMITATIONS

Only **TWO SET** of sails are permitted at the time of Race Registration

F.2 MAST

F.2.1 MATERIALS

As per **D.2.1**

F.3 BOOMS

F.3.1 MATERIALS

As per D.2.1

F.3.2 COSTRUCTION

Contrsuction in unrestricted, except for internal automatic mechanisms controlling the Mainsail and Headsails like “butterfly” or similar devices, **are forbidden**.

Section G – SAILS

G.1 PARTS

G.1.1 MANDATORY

- (a) MAINSAIL
- (b) HEADSAIL
- (c) GENOA (permitted as Headsail replacement)

G.2 GENERALS

G.2.1 RULES

The Sails shall either comply with the **Class Rules** in force at the time of its initial **fundamental measurement** or comply with the current **Class Rules**.

G.2.2 CERTIFICATION

The Club’s responsible nominated Member shall **Certificate** the Sails close to the Tack with date and signature .

G.3 MAINSAIL

CONSTRUCTION

Construction is unrestricted

G.3.1 The Main is generally composed of several material sheets (see drawing at page 8)

Luff lenght	1750 mm	maximum
Main head width	60 mm	to 200 mm

G.4 HEADSAIL

G.4.1 COSTRUCTION

Construction is unrestricted

G.4.2 SURFACE

The Headsals surface shall not be lower than **35%** and not higher than **55%** of the Mainsail surface area.

G.5 GENOA

G.5.1 COSTRUCTION

Construction is unrestricted

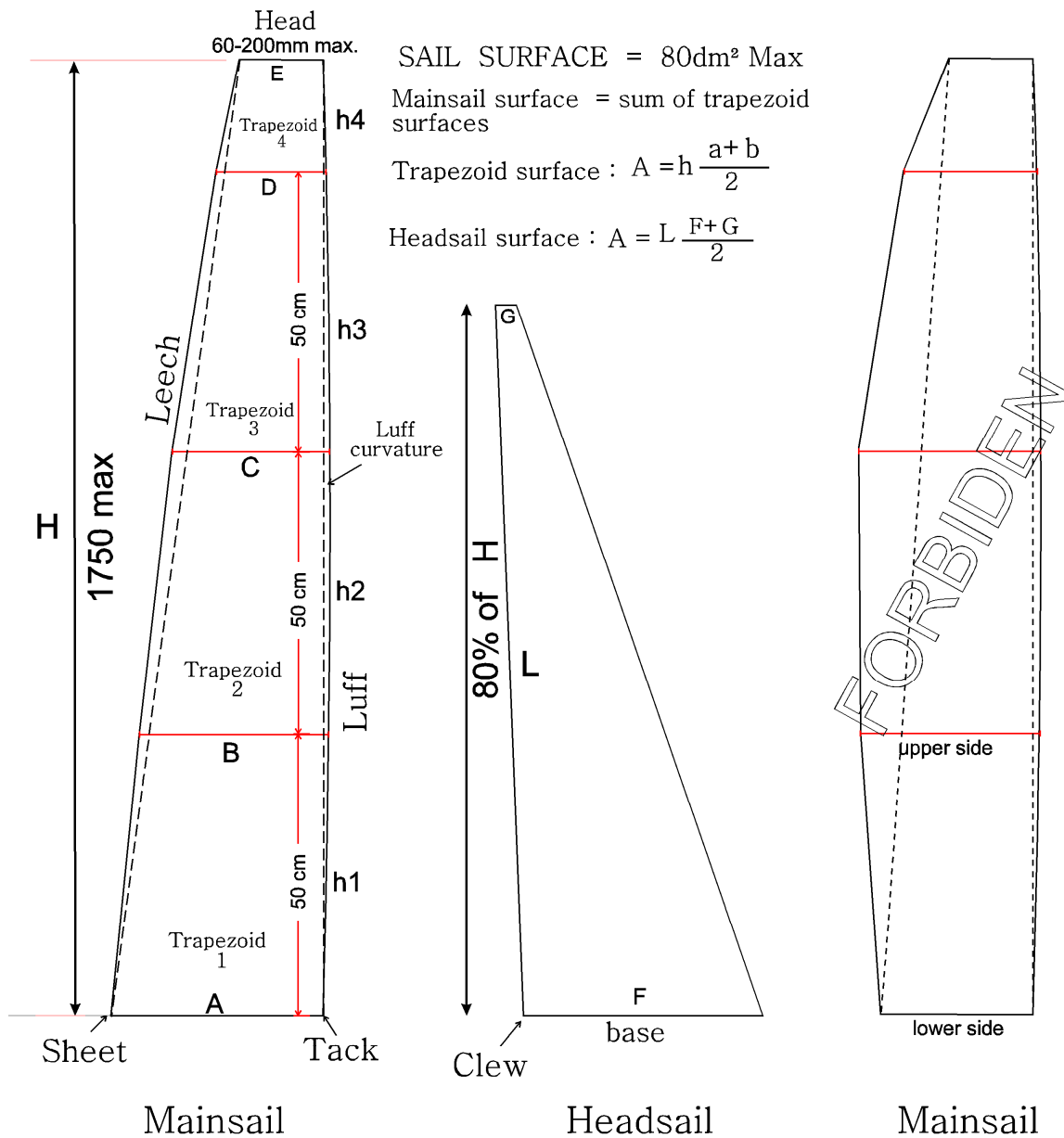
G.5.2 SURFACE

The Headsails surface shall not be lower than **35%** and not higher than **55%** of the Mainsail surface area.

The surface projecting over the Mast is not calculated.

Section H – DRAWINGS

H.1 Sail's Drawings



G.6.1 The Club Responsible Member will make use of the formula defined in the above drawing in order to verify the sail's surface areas.
The Sails Omologation Certificate will include the measured dimensions of the following parameters :

A, B, C, D, E, F, G, H, L, and the heights $h_1, 2, 3, 4$

The first calculation will be performed for the Mainsail by adding the surfaces of the various trapezoidal sheets composing the Mainsail and the Headsail shall comply with the requirement defined in G.4.2. and G.5.2.

G.6.2 FORBIDDEN Shape

Each trapezoid shall have the upper side shorter than the lower side.

PART III – CLASS INSIGNA

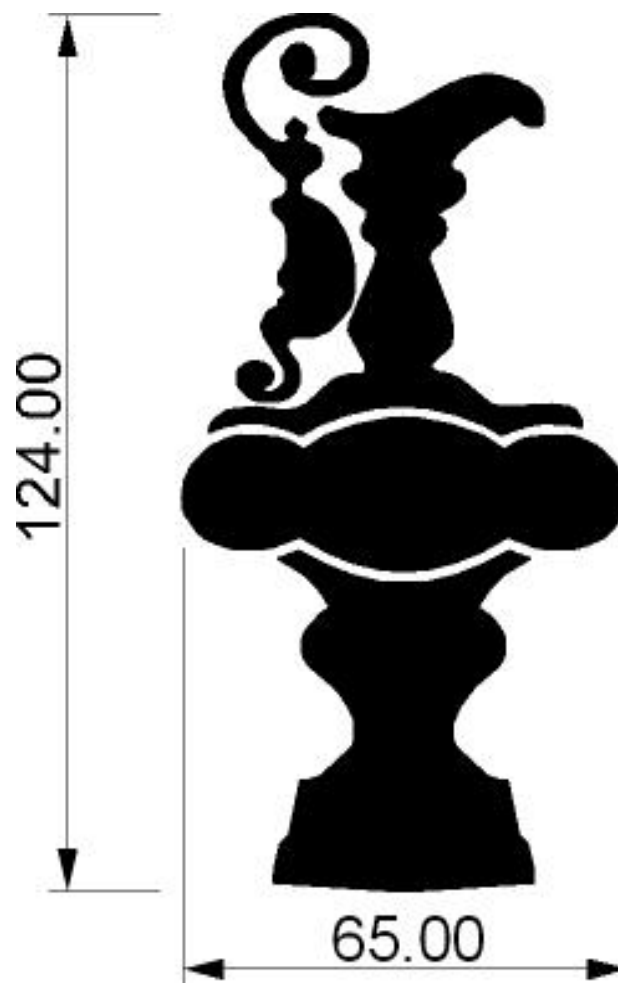
Section I – Illustrations

I.1 CLASS INSIGNA

I.1.1 MANDATORY

To be applied or drawn on the Main

I.1.2 Sizes



PART IV – INFORMATIONS

WEB SITE : <http://iacc120cup.altervista.org/Main0.html>

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