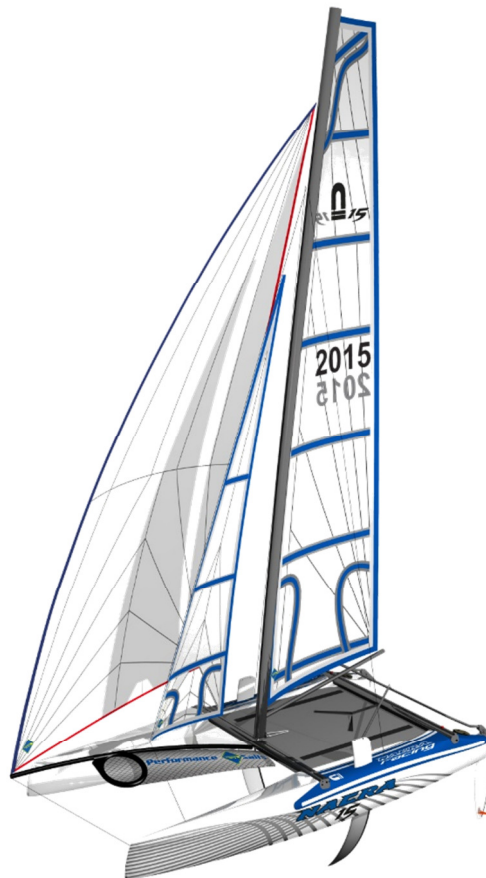




INTERNATIONAL *NACRA* **15** CLASS RULES

2016



The NACRA 15 was designed in 2014 by Morrelli & Melvin and NACRA and was appointed as the international Youth Multihull in 2015 by World Sailing



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INTRODUCTION

This introduction only provides an informal background and the International Nacra 15 Class Rules proper begin on the next page.

Nacra 15 hulls, hull appendages, cross beams, trampoline, rigging and sails are manufacturing controlled.

Nacra 15 hulls, hull appendages, cross beams, trampoline, rigging and sails shall only be manufactured by Nacra Sailing BV– in the class rules referred to as ‘Nacra licensed suppliers’. Equipment is required to comply with the International Nacra 15 Building Specification and is subject to an World Sailing approved manufacturing control system.

Nacra 15 hulls, hull appendages, cross beams, trampoline, rigging sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Owners and crews should be aware that compliance with rules in Section C is the responsibility of the competitor, as this is NOT checked as part of the in house certification process.

Rules regulating the use of equipment during a race are contained in Section C of these class rules, in ERS Part I and in the Racing Rules of Sailing.

PLEASE REMEMBER:

THESE RULES ARE **CLOSED CLASS RULES** WHERE IF IT DOES NOT

SPECIFICALLY SAY THAT YOU MAY – THEN YOU SHALL NOT.

COMPONENTS, AND THEIR USE, ARE DEFINED BY THEIR DESCRIPTION.



PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

- A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
- A.1.2 The word “shall” is mandatory and the word “may” is permissive.
- A.1.3 Except where used in headings, when a term is printed in “**bold**” the definition in the ERS applies and when a term is printed in “*italics*” the definition in the RRS applies.

A.2 ABBREVIATIONS

- A.2.1
 - WS International Sailing Federation
 - MNA WS Member National Authority
 - NS Nacra Sailing B.V.
also referred in the rules as NACRA the copy right holder.
 - IN15CA International Nacra 15 Class Association
 - NNCA National Nacra Class Association
 - ERS Equipment Rules of Sailing
 - RRS Racing Rules of Sailing
 - IM International Measurer

A.3 AUTHORITIES

- A.3.1 The international authority of the class is World Sailing which shall co-operate with the IN15CA in all matters concerning these **Class Rules**.
- A.3.2 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so on the request of World Sailing.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 World Sailing has delegated its administrative functions of the class to the IN15CA.

A.5 CLASS RULES CHANGES

- A.5.1 World Sailing Regulation 10.11 applies.

A.6 CLASS RULES AMENDMENTS

- A.6.1 In accordance with World Sailing Regulations, amendments to the **Class Rules** require the approval of World Sailing after their adoption by a simple majority vote of the members in a general meeting of the IN15CA held in accordance with its constitution.



A.7 CLASS RULES INTERPRETATION

- A.7.1 Interpretation of **Class Rules** shall be made in accordance with the World Sailing Regulations in consultation with the IN15CA and NS.
- A.7.2 Interpretation of **Class Rules** at an event shall be carried out in accordance with the RRS. The event organising authority shall inform the World Sailing and IN15CA of any such interpretations.

A.8 INTERNATIONAL CLASS FEE AND WORLD SAILING BUILDING PLAQUE

- A.8.1 The licensed manufacturer shall pay the International Class Fee.
- A.8.2 World Sailing shall, after having received the International Class Fee for the **hull**, send the World Sailing Building Plaque to the licensed manufacturer.

A.9 LICENSED MANUFACTURER

- A.9.1 Nacra 15 equipment shall only be manufactured by Nacra and its appointed suppliers, except where otherwise authorized by these **Class Rules**.

A.10 SAIL NUMBERS & CLASS INSIGNIA

- A.10.1 **Sail** numbers shall be:
 - (a) the number corresponding to the number on the World Sailing International Class building plaque, shall be used in the first 3 digits;
 - (b) where the helm has finished in the top 3 in the preceding Nacra 15 World Championship their **sail** number shall be that place, single digit.
 - (c) sailors may use the sail number shown on the ISAF International Class building plaque of any hull still owned by them on any other boat owned by them or on a boat chartered or loaned for an event.
Positioning of the numbers are specified in Appendix Section K.
- A.10.2 The area between the second from the top and third **sail batten** of the **mainsail** shall be kept free of competitor advertising, and shall be reserved for the Class Insignia, as specified in Appendix Section K.



Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

B.1.1 The Boat shall:

- (a) be in compliance with the **Class Rules**.
- (b) have components of the Nacra 15 with valid identification stickers as required in Sections D,E,F,G and Appendix section H

B.2 EVENT INSPECTION

B.2.1 A role of **Equipment Inspectors** at an event is to verify that equipment has been produced by Nacra and has not been subsequently altered (other than as is permitted within these rules) using whatever inspection methods they deem appropriate, including comparison with a reference sample of the type of equipment presented for inspection. Should this comparison reveal deviation greater than the Equipment Inspector considers being within manufacturing tolerances, the matter shall be reported to the Race Committee.
Such occurrences shall be reported to World Sailing and the IN15CA Technical Committee for investigation and a ruling on the eligibility of the equipment for racing.

B.3 EVENT LIMITATION MARKS

B.3.1 If an event uses **event limitation marks** these marks shall not be removed during the event. If the **event limitation mark** becomes damaged or lost this shall be reported to the Race Committee as soon as possible.



PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. In case of conflict Section C shall prevail.

The Class Rules in Part II are **closed class rules**, where anything that is not specifically allowed in **Class Rules** is prohibited.

Equipment control and **equipment inspection** shall be carried out in accordance with the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

- (a) RRS 49.1 is amended such that both members of the **crew** may use a trapeze.

Add to RRS 49.1; both **crew** must maintain contact between the **boat** and their body when using their trapezes.

C.1.2 LIMITATIONS

- (a) The Nacra 15 shall only be raced with original or replacement equipment supplied by Nacra licensed suppliers only, except where otherwise authorized by these **Class Rules**.
- (b) Where replacement equipment other than from Nacra licensed suppliers is authorized, it may be obtained from any supplier provided that the replacement is of a similar weight, size and type, performs the same function within the tolerances set by Appendix section H and I. Replacement fittings shall be fitted in the same position as the original fitting.

C.2 CREW

C.2.1 LIMITATIONS

- (a) The **crew** shall consist of two persons.

C.2.2 MEMBERSHIP

During all international events each **crew** member shall be a current member of the IN15CA.

C.3 PERSONAL EQUIPMENT

C.3.1 PERSONAL FLOATATION DEVICE

- (a) When racing both **crew** shall wear a **personal floatation device** to the minimum standard ISO 12402-5 (Level 50 Newtons), or USCG Type III, or AUS PFD 1, or EN 393, unless an alternative standard is prescribed otherwise in the Notice of Race.
- (b) The use of inflatable personal flotation devices is not permitted when racing.



C.4 ADVERTISING

- C.4.1 Advertising as chosen by the Person in Charge is unrestricted as in accordance with ISAF Regulation 20.3.1.1 and 20.3.1.2
- C.4.2 For the purpose of ISAF Advertising Code, the gennaker shall be deemed a spinnaker.

C.5 PORTABLE EQUIPMENT

C.5.1 OPTIONAL

- (a) Timing devices, removable for weighing.
- (b) Maximum one compasses with brackets, removable for weighing.
- (c) Electronic compasses with functions beyond heading and timing are prohibited.
- (d) Spare parts and tools, removable for weighing.
- (e) Camera recording equipment and attachments and/or race tracking equipment (GPS) where permitted by the IN15CA , Notice of Race and/or Sailing Instructions and removable for weighing.

C.6 BOAT

The following is permitted without the approval of the IN15CA Technical committee. Unless stated otherwise items mentioned in the section may be obtained from any manufacturer or supplier.

C.6.1 MODIFICATIONS

- (a) The use of the following items is in general unrestricted, except that such items shall not be used in such a way as to create a fitting or extend a function of a permitted fitting:
 - (i) shockcord, with a maximum diameter of 5 mm;
 - (ii) adhesive tape
 - (iii) rings
 - (iv) Protective coverings made of any soft material over exposed fittings are permitted.
 - (v) plastic balls
 - (vi) blocks with a maximum sheave diameter of 20mm may be added provided it does not create a new function.
- (b) To facilitate advertising, the application of vinyl, mylar or other plastic film over the surfaces of the **hull, sails and spars**, provided that the film shall not be specially textured or otherwise manufactured in a way that could improve the character of the flow of water or air inside the boundary layer.
- (c) The righting line may be changed to a minimum diameter of 7 mm and a minimum length of 4100 mm, led under the trampoline with both ends fixed to the Front Cross Beam at either sides of the hulls and held under tension by the use of shockcord and rings.

C.6.2 MAINTENANCE

- (a) Maintenance may be carried out provided that the essential shape, characteristics and function of the original component are not affected.
- (b) Any cleat including integrated fairlead may be replaced with a cleat of any material and substantially of the same size and design.
- (c) Any block on the boat may be replaced with a block of the same number of sheaves with a sheave diameter tolerance as listed in appendix section



H. With exception for the following:

- (1) The mainsheet system number of sheaves may be altered to achieve a maximum purchase of 10:1 and a minimum purchase of 8:1, only one ratchet block is allowed in the mainsheet system.
- (2) The four supplied blocks for the Gennaker sheets, maybe changed to any type of block with a minimum sheave diameter of 38mm and a maximum of 60mm.
- (d) Any attachment of blocks may be replaced. Attachments for blocks shall be of substantially the same size and design as the original.

C.6.3 REPAIR

- (a) Maintenance may be carried out provided that the essential shape, characteristics and function of the original component are not affected.
- (b) Fasteners may be replaced or added if the function of the fitting or part is not altered and where required to facilitate a repair the fitting maybe modified to accommodate slightly larger fixings

C.6.4 WEIGHT

The weight of the **boat** in dry condition shall be minimum 132 kg

The weight shall be taken including:

hull platform, mast, hull appendages, bowsprit and all equipment and **rigging** as listed in Appendix section H and I,
excluding: the **tiller extension, mainsail** and **battens, jib** and **battens, gennaker** and all **portable equipment** listed in C.5.1.

C.6.5 CORRECTOR WEIGHTS

- (a) **Corrector weights** of lead shall be securely fastened to the outside on the starboard side from the middle of the front beam at the V-bar (dolphin-striker rod), when the **boat** weight is less than the minimum requirement.
- (b) The total weight of such **corrector weights** shall not exceed 4 kg.

C.7 HULL

The following is permitted without the approval of the IN15CA technical committee. Unless stated otherwise items mentioned in the section may be obtained from any manufacturer or supplier.

C.7.1 MODIFICATIONS

- (a) Additional non-skid tape may be applied to:
 - (i) the upper deck areas in front of the front cross beam
 - (ii) the rear cross beam
 - (iii) the upper deck areas behind the rear cross beam
- (b) Wedges may be fitted under the rotation line clam-cleats.
- (c) Stand-up springs or boots may be fitted between the spinnaker blocks and the eye-straps on the deck.
- (d) Two foot straps may be fitted to each hull, aft of the rear cross beam
- (e) No holes may be made in the hull or deck mouldings except;
 - (i) for the purpose making repairs
 - (ii) to fit foot straps



- (f) The daggerboard case gaskets, e.g. bottom and deck gaskets (or bearings) shall be supplied by Nacra licenced suppliers only and shall not be altered.

Advisory note: nowhere is re-finishing, fairing of the daggerboard case **hull** surfaces permitted except to facilitate localised repair in this rule. Provided that the essential shape, characteristics and function of the original component are not affected, the IM may use templates to verify compliance with these limitations.

C.7.2 MAINTENANCE

- (a) The watertight integrity of the **hull** shall be maintained.
- (b) The breather hole in the centre of the top-hatch of each hull shall remain open.
- (c) The outermost surfaces of the **hulls** may be polished and cleaned with normal concentrations and quantities of detergents or similar materials.

C.7.3 REPAIR

- (a) In the event of damage to any part of the **hull**, necessary repairs may be made provided repairs are made in such a way that the essential shape and function is not materially affected. Areas of damage repair may be filled, sanded and polished over.
- (b) Only composite repairs with E-glass laminate are permitted for the hull structure.
- (c) Replacement of non-skid 'pro-grip' of the same type to the deck moulding is permitted. The pro-grip shall be supplied by Nacra licenced suppliers only.

C.7.4 LIMITATIONS

- (a) Only one starboard **hull** and one port **hull** shall be used in an event, except when lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee.

C.8 HULL APPENDAGES

The following is permitted without the approval of the IN15CA technical committee unless stated otherwise items mentioned in the section may be obtained from any manufacturer or supplier.

C.8.1 MAINTENANCE

- (a) The outermost surfaces of the **daggerboards** and **rudders** may be sanded, polished and cleaned with normal concentrations and quantities of detergents or similar materials. Provided that the essential shape, characteristics and function of the original component are not affected, the IM may use templates to verify compliance with these limitations.
- (b) The rope handle of the daggerboard, may be replaced by a different rope, with a maximum length of 600 mm and minimum 5 mm of thickness.
- (c) Small quantities of friction-reducing compounds (E.g. McLube or Teflon) may be applied only to the surfaces prior to racing, and solely for the purpose of reducing bearing friction while raising and lowering the hull appendages.



- (d) The tiller extension may be replaced without any restrictions as to design and material.

C.8.2 REPAIR

- (a) Repairs to chips in the leading and trailing edges of blades may be filled and blended in.

Advisory note: nowhere is re-finishing, fairing of the **hull appendage** surfaces permitted except to facilitate localised repair in this rule. Painting is not mentioned therefore as these are **closed class rule** it is prohibited.

C.8.3 LIMITATIONS

- (a) Only one starboard **daggerboard**, one starboard **rudder**, one port **daggerboard** and one port **rudder** shall be used in an event, except when lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee.

C.9 BEAMS

The following is permitted without the approval of the IN15CA Technical Committee. Unless stated otherwise items mentioned in the section may be obtained from any manufacturer or supplier.

C.9.1 MODIFICATIONS

- (a) Jib sheet and Cunningham trim line retraction system may be altered to a continuous system to the opposite side of the platform. An additional block may be used as specified in appendix section I.
- (b) Adjustment of the beam bolts bedding inside the beam extrusion and castings is prohibited and no filler may be applied.
- (c) Beams shall be able to be removed without damage to either the **hull** or beam at any time. Bedding the beams in the hull with any filler material is hereby prohibited.
- (d) No additional holes may be made in the beam extrusions.

C.9.2 MAINTENANCE AND REPAIR

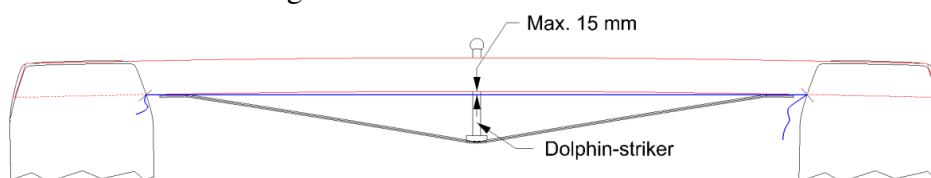
- (a) Routine maintenance such as cleaning, polishing and the replacement of broken fittings is permitted.
- (b) Beam bolts are Nacra licensed suppliers only.
- (c) Any cleat or fittings may be replaced with a fitting of same type and manufacturer in the same position as the standard fitting and substantially of the same size and design.
- (d) Any running block may be replaced with a block of the same number of sheaves with a sheave diameter tolerance as listed in appendix section I.

C.9.3 FITTINGS

(a) USE

	Minimum	Maximum
Front cross beam curvature	0mm	15mm

Front cross beam curvature is the greatest distance between:
the cross beam
and a straight line from the port and starboard bottom points of
the beam at the intersection with the hull
taken at 90° to the straight line with the dolphin-striker tensioned, the mast
removed, the cross beam horizontal and both crossbeams tightened into
their beam beddings.



C.10 RIG

The following is permitted without the approval of the IN15CA Technical Committee unless stated otherwise items mentioned in the section may be obtained from any manufacturer or supplier. Localised repairs to damaged equipment may be undertaken. Any repair shall not be used to reinforce an existing part or add a function.

C.10.1 MODIFICATIONS

- (a) In order to protect the mast from the rigging the use of any tape is permitted.
- (b) Calibration marks are permitted.
- (c) Any cleat or fittings may be replaced with a fitting from any manufacturer in the same position as the standard fitting and substantially of the same size and design. No additional holes may be drilled in the mast section.
- (d) Any block may be replaced with a block of the same number of sheaves with a sheave diameter tolerance as listed in appendix section H and I.
- (e) No additional holes may be made in the spar sections,
- (f) Tufts or ribbons in the rigging are allowed.
- (g) A protective cover made only from sail cloth and attached by adhesive tape with a max size of 300mm by 350mm may be fitted over the hounds.

C.10.2 MAINTENANCE AND REPAIR

- (a) Routine maintenance such as cleaning, polishing and the replacement of broken fittings is permitted.



C.10.3 FITTINGS

(a) USE

- (1) Lower hole of the hounds shall be used to fit the forestay and shrouds.
- (2) The middle and top hole of the hounds shall be used to fit the trapeze wires.
- (3) The trapeze wires may also be fitted through the upper terminal of the shrouds.

C.10.4 LIMITATIONS

- (a) Only one set of **spars** and **standing rigging** shall be used during an event, except when an item has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee.

C.10.5 FITTINGS

- (a) Optional mechanical wind indicators

C.10.6 STANDING RIGGING

- (a) MODIFICATION, MAINTENANCE AND REPAIR.

- (1) **Standing rigging** may be replaced and shall comply with the following:

Standing rigging	Qty	Diam.	Material	Associated Hardware	options or restrictions
		mm			
Forestay	1	3.0	Standard 1 x 19 stainless steel wire		±0.05 mm in diam. Length minimum 5570mm & maximum 5590mm
	1			Stay adjuster NA30326	Nacra Licensed suppliers only
Bridle	2	3.0	Standard 1 x 19 stainless steel wire		Nacra Licensed suppliers only
	1			Bridle fitting NA31698	Nacra Licensed suppliers only
Shrouds	2	3.0	Standard 1 x 19 stainless steel wire		diam. ±0.05 mm.
	2			Stay adjuster NA 30326	Nacra Licensed suppliers only
Diamonds	2	3.0	Standard 1 x 19 stainless steel wire		diam. ±0.05 mm.
Bowsprit bridle	2	2.5	Standard 1 x 19 stainless steel wire		Nacra Licensed suppliers only
Bowsprit mid-bridle	2	3.0	polyester		±0.2 mm diam.
Tramp laces rear	1	3.0	Dyneema Sk75/80 or polyester		±0.2 mm diam.
Tramp laces side	2	3.0	Dyneema Sk75/80 or polyester		±0.2 mm diam.
Trapeze lines	4	2.5	1 x 19 stainless steel wire	open, see C.10.7 (a)(2)	±0.2 mm diam.

⁽¹⁾ Length is the distance taken between the bearing surfaces of the rigging.

- (2) The **jib** halyard locking system shall be in the same position as on the standard forestay, substantially of the same size, weight and structural design.

(b) USE

- (1) Standing rigging shall not be adjusted while racing.



C.10.7 RUNNING RIGGING

(a) MODIFICATION, MAINTENANCE AND REPAIR.

- (1) **Running rigging** may be replaced and shall comply as specified in Appendix section I.
- (2) The **trapeze** system arrangement is open and may be modified to include an adjustable hook height system provided that the attachment methods by shockcord to the hull and front cross beam are not changed.
- (3) The Cunningham trim line may be led through a block, with a maximum sheave diameter of 22 mm, attached to the trapeze system.
- (4) A shackle or snap-shackle may be fitted at the end of the main sheet where it attaches the mainsail.
- (5) A shackle or snap-shackle may be fitted at the end of the jib sheet where it attaches to the clew board of the jib.
- (6) The gennaker tack-line inboard end block may be attached by rope to the shrouds, gennaker strap-eye or front cross beam casting.
- (7) Mast rotation line may be modified to a continuous system.
- (8) A rope with a ring may be fitted to the gennaker clew for the purpose of leading
the gennaker retrieval line through this ring.

(b) USE

- (1) **Running rigging** shall be led through and attached to the fittings supplied for their function.

C.11 SAILS

C.11.1 MODIFICATIONS, MAINTENANCE AND REPAIR

The following is permitted without (re-**certification** or) approval and may be done by anyone.



- (a) Routine maintenance and repair
- (b) Addition of tell tales
- (c) Addition of camber stripes
- (d) Battens as supplied by NACRA may be placed in the **batten pockets**

C.11.2 LIMITATIONS

- (a) Not more than 1 **mainsail**, 1 **jib** and 1 **gennaker** shall be used during an event except when a sail has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee.

C.11.3 MAINSAIL

- (a) **MODIFICATION, MAINTENANCE AND REPAIR.**

As per C.6.1 (b) the application of vinyl, mylar or other plastic film over the

surfaces of the **Mainsail** is permitted to facilitate advertising, provided that the film shall not cover the window panels (blue coloured panels in Appendix section K) in the sail

- (b) **IDENTIFICATION**

The national letters and the sail numbers shall be black in colour and applied according to the dimensions as defined in Appendix section K immediately under batten nr. 4. The national letters and numbers shall comply with the RRS Appendix G except where specified otherwise in Appendix section K.

The lower window of the main Sail shall carry a Nacra 15 logo as supplied by Nacra.

- (c) **BATTENS**

The main battens shall be of the standard set supplied by Nacra Licensed suppliers only and shall not be altered. A standard batten set shall consist of 6 battens

it is not allowed to put battens in not matching batten pockets and each batten pocket sail carry one batten.

- (d) **NATIONAL FLAGS**

- (i) All teams when racing in the Nacra 15 international events shall display their national flag. The flag shall be placed on the starboard side of the mainsail between the 3rd and 4th battens from the head point of the sail.

- (ii) Flags shall only be ordered and purchased through the IN15CA.

- (iii) The National Flag shall be corresponding to the Country Code displayed in the sail number.



(e) USE

- (i) The sail shall be hoisted on the halyard. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the sail whilst afloat.

C.11.4 JIB

(a) MODIFICATION, MAINTENANCE AND REPAIR.

- (1) As per C.6.1(b) the application of vinyl, mylar or other plastic film over the surfaces of the **Jib** is permitted to facilitate advertising, provided that the film shall not cover the window panels (blue coloured panels in Appendix section K) in the sail and the batten pockets on the port side of the **sail** in order to identify the batten certification stickers.

(b) BATTENS

The jib battens shall be of the standard set supplied by Nacra Licensed suppliers only and shall not be altered. A standard batten set shall consist of a lower, middle and top batten.

it is not allowed to put battens in not matching batten pockets and each batten pocket sail carry one batten.

(c) USE

- (i) The sail shall be hoisted on the halyard. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the sail whilst afloat.

C.11.5 GENNAKER

(a) MODIFICATION

The gennaker may be painted for graphics.

Section D – Platform

D.1 PARTS

D.1.1 MANDATORY

- (a) Starboard hull
- (b) Port hull
- (c) Front cross beam
- (d) Rear cross beam
- (e) Trampoline

D.2 MODIFICATIONS, MAINTENANCE AND REPAIR

The alterations contained in D.2.1. to D.2.3 may be made by Nacra, or by anybody after a formal request has been made to the Nacra and written approval is received by the owner. This shall require the manufacturer's declaration to be re-issued



D.2.1. MODIFICATIONS

(a)

D.2.2. MAINTENANCE

(a)

D.2.3. REPAIR

(a) If any **hull** is damaged and requires repaired in any other way than described in section C the details shall be recorded on the Manufacturers declaration.

D.3 MANUFACTURERS

The parts of section D.1.1 shall only be manufactured by Nacra Licensed Manufacturers.

D.4 IDENTIFICATION

The **Hull** shall carry the licensed manufacturer's serial number displayed on the transom of the starboard hull.

Items (c),(d) and of section D.1.1 shall carry identification labels.

D.5 MATERIALS, CONSTRUCTION AND DIMENSIONS

D.5.1 Shall comply with the World Sailing approved Builders Construction Manual.

D.5.2 PAINT

Only hulls of boats which are older than 4 years can be painted. Severely damaged boats can be painted with only written permission by the IN15CA technical committee. after sending a damage report form including pictures to; info@nacra15class.com.

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) Starboard Daggerboard
- (b) Port Daggerboard
- (c) Starboard Rudderblade
- (d) Port Rudderblade
- (e) Rudder upper-casting including tiller-arm
- (f) Rudder lower-casting
- (g) Tiller-bar



E.2 MANUFACTURERS

The parts of section E.1 shall only be manufactured by Nacra Licensed Manufacturers.

E.3 IDENTIFICATION

The daggerboard and rudderblades of items (a), (b), (c) and (d) carry the licensed manufacturer's serial number displayed on the blade

Rudder castings item (e) and (f) shall carry imbedded Nacra logos.

Tiller bar item (g) shall carry a Nacra 15 identification label.

E.4 MATERIALS, CONSTRUCTION AND DIMENSIONS

Shall comply with the World Sailing approved Builders Construction Manual.

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

- (a) Mast
- (b) Spreaders
- (c) Boom
- (d) Bowsprit including snuffer ring
- (e) Compression post
- (f) Spi snuffer bag

F.2 MANUFACTURERS

The parts of section F.1 shall only be manufactured by Nacra Licensed Manufacturers.

F.3 IDENTIFICATION

Items (a), (b), (c), (d) and (e) shall carry a Nacra 15 identification labels.

F.4 MATERIALS, CONSTRUCTION AND DIMENSIONS

Shall comply with the world Sailing approved Builders Construction Manual.

Section G – Sails

G.1 PARTS

G.1.1 MANDATORY

- (a) Mainsail
 - (i) Standard batten set
- (b) Jib
 - (i) Standard batten set
- (c) Gennaker



G.2 MANUFACTURERS

Sails of section G.1.1 shall only be manufactured by Nacra Licensed Manufacturers.

G.3 IDENTIFICATION

The mainsail, jib and gennaker shall carry the licensed manufacturer's serial number displayed on the sails.

G.4 MATERIALS, CONSTRUCTION AND DIMENSIONS

Shall comply with the World Sailing approved Builders Construction Manual.



PART III – APPENDICES

The rules in Part III are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

Section H: MANUFACTURED PART LIST

The following components shall comply with the building specification in force at the time of manufacture. As required, components shall have identification stickers attached by the builder at the time of manufacture or by the measurer:					
Qty	Component	Associated Hardware	Iden. sticker	Ident. Nr.	Options or tolerances
					<i>(Where no comment as per class rules)</i>
2	Hull		Required	Yes	Nacra Licensed suppliers only
2		Mast rotation clam cleat cl268			
2		Gennaker HK2526 57 mm			±2mm diam. sheave
1	Front Cross beam		Required	No	Nacra Licensed suppliers only
2		Gennaker sheet HK2636 40 mm			Or HK2526 ±2mm diam. sheave
1		Tackline cheek HK233 22mm			±2mm diam. sheave
1		Spi Tack cleat HK468			Harken licensed suppliers only
2		Jib sheet swivel base HK241			Harken licensed suppliers only
1		Jib track Car HK2700			Harken licensed suppliers only
1		Jib track			Nacra Licensed suppliers only
1	Rear Cross Beam		Required	No	Nacra Licensed suppliers only
1		Traveler track car HK2738			Harken licensed suppliers only
2		chickenline shockcord blocks			16 mm sheave ± 4 mm diam. sheave
1	Mast		Required	No	Nacra Licensed suppliers only
2		Cunningham sheave micro HK160			±2mm diam. sheave
1		Cunningham single HK348ASSY			±2mm diam. sheave
2		Cunningham Pivoting HK395 Or Spinlock PXR0206/VP			±2mm diam. sheave
1	Spreaders (6 components)		Required	No	Nacra Licensed suppliers only
1	Boom		Required	No	Nacra Licensed suppliers only
1		Clamcleat Outhaul CL277			Nacra Licensed suppliers only
1		Boom Gooseneck U-fitting			Nacra Licensed suppliers only
1	Compression Post		Required	No	Nacra Licensed suppliers only
1	Trampoline		Required	No	Nacra Licensed suppliers only
2		Spi Haylard guiders HK348ASSY			Open
1	Bowsprit		Required	No	Nacra Licensed suppliers only
1		Snuffer ring			Nacra Licensed suppliers only
1		Tackline stand-up HK349			±2mm diam. sheave
1		Clamcleat jib carline CL211			
1		Jib sheet cheek blok HK416			±2mm diam. sheave
1	Spi snuffer bag		Required	No	Nacra Licensed suppliers only
2	Daggerboard		Required	Yes	Nacra Licensed suppliers only
2	Rudder blade		Required	Yes	Nacra Licensed suppliers only
2	Ruddersystem - upper - incl. rudderarm				Nacra Licensed suppliers only
2	Ruddersystem - lower				Nacra Licensed suppliers only
1	Tiller-bar		Required	No	Nacra Licensed suppliers only
1	Tiller extension		None		
1	Mainsail		Required	Yes	Nacra Licensed suppliers only
		Batten set		No	Nacra Licensed suppliers only
1	Jib		Required	Yes	Nacra Licensed suppliers only
		Standard batten set		No	Nacra Licensed suppliers only
1	Gennaker		Required	Yes	Nacra Licensed suppliers only

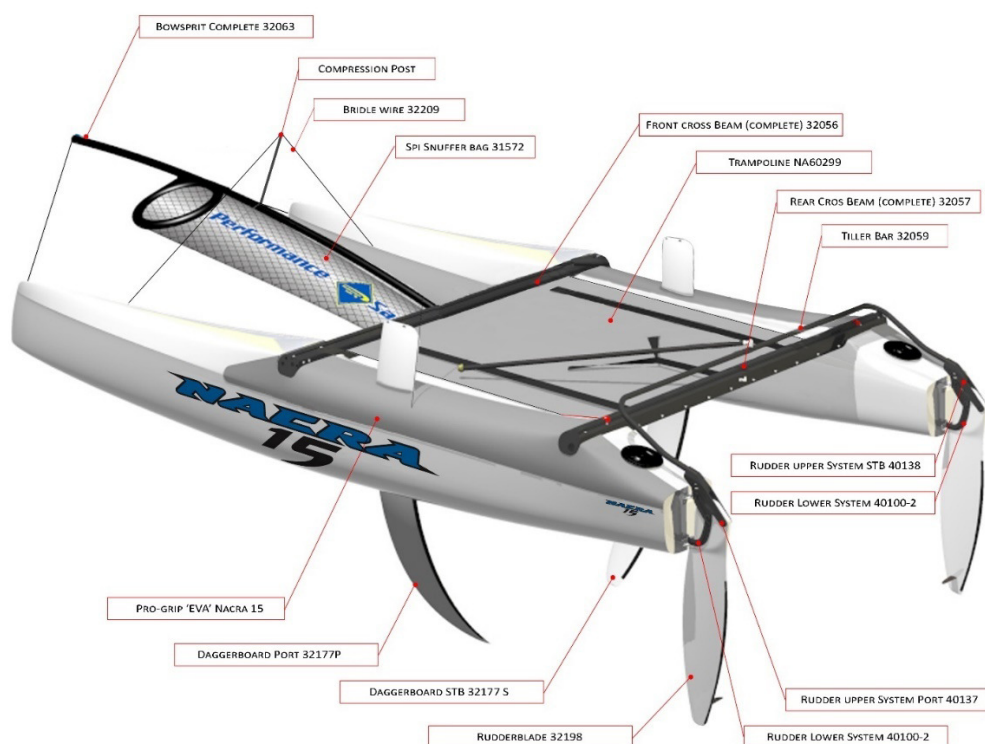


Section I: RIGGING LIST

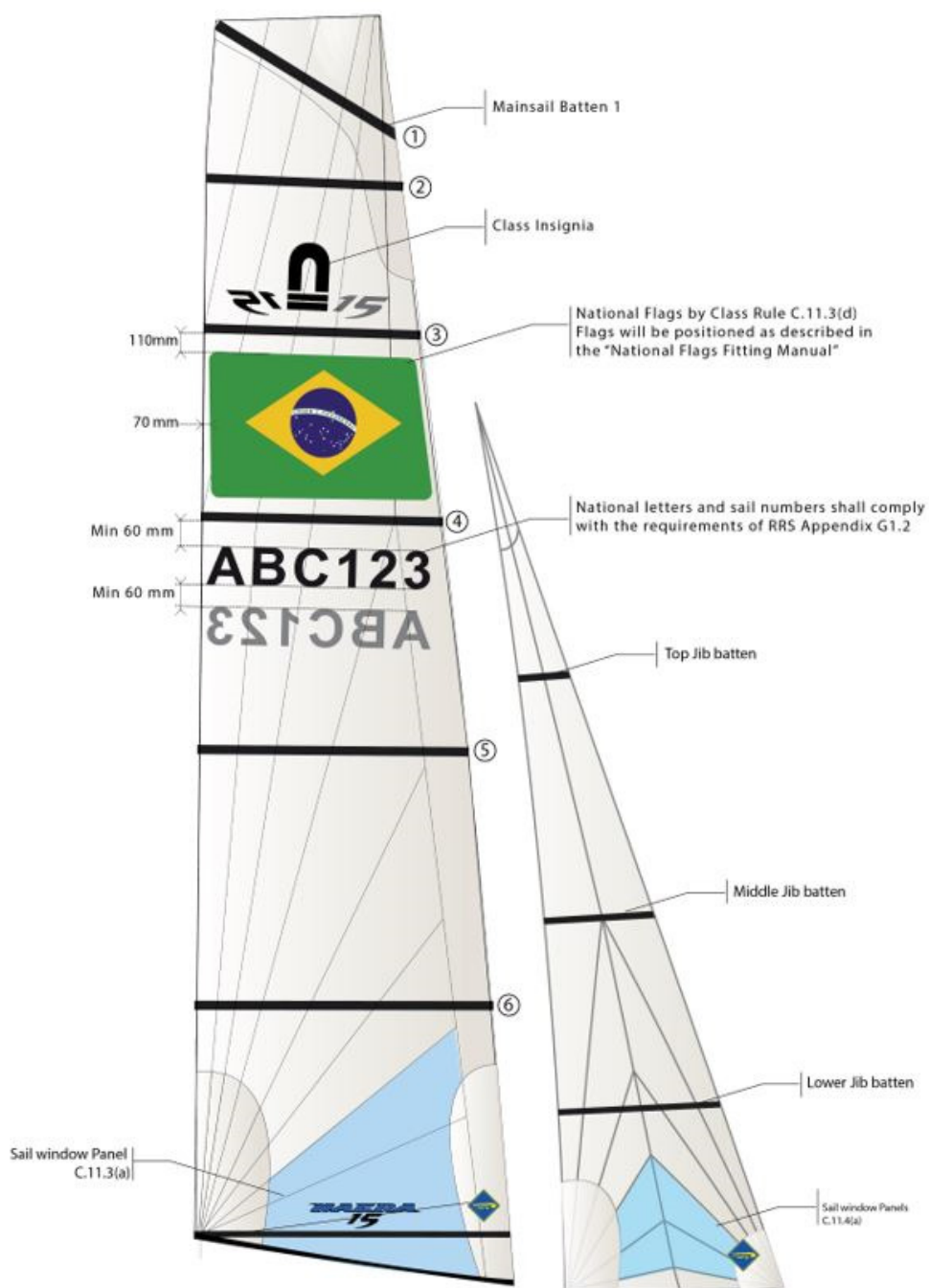
Running Rigging	Size			Material/Associated Hardware		Options or tolerances
	Qty	length	diam	core	cover	
		mm	mm			(Where no comment as per class rules)
Mainsheet standard 1:8	1					
(optional with splittale)	1			HK2141+HK2650		±2 mm diam. sheave
	1			HK2631		±2 mm diam. sheave
Mainsheet with splittale 1:10	1					
(optional)	1			HC8454		±2 mm diam. sheave
	1			HK2762		±2 mm diam. sheave
Gennaker Halyard core+cover	1			Dyneema® Sk75/80	Poly/Nylon	
Main Halyard	1		5			±0.5 mm diam. and ±2000 mm rope length
	1			ring w/shackle		Nacra Licensed suppliers only
Jib Halyard	1					
	1			s-hook jib		Nacra Licensed suppliers only
Gennaker Sheet	1					
Gennaker Tackline	1			Dyneema® Sk75/80	Poly/Nylon	
	1			HK 348 29mm		
Main Downhaul purchase 1:8	2			HK 406 double 16 mm		±2mm diam. sheave
Jib sheet 1:3	1					
	1			HK 406 16mm		±2mm diam. sheave
	1			Shackle		
Spin block line	1					
	1			HK 348 29mm		±2mm diam. sheave
Spin Bale	1					
Rotation line	1					
	1			ring max. diameter 30mm		±5mm inside diam.
Spin tack release	1					
	1			ring max. diameter 30mm		±5mm inside diam.
Hiking strap tie	3					
Righting line	1	4100	7			As per C.6.1(c)
Trapeze shockcord	2			Shockcord		±0.5 mm diam. shockcord.
Spinhalyard shockcord	1			Shockcord		
	1			HK 348 29mm		±2mm diam. Sheave
Spinblock shockcord	2			Shockcord		
Spintack shockcord	1			Shockcord		

Running Rigging	Size			Material/Associated Hardware		Options or tolerances
	Qty	length	diam	core	cover	
Front cross beam rigging						
(optional) Jib and Cunningham retraction system	2			HK 406 16 mm double		±2mm diam. sheave
(optional for continues)	2			HK 224 22mm (running-block)		±2mm diam. sheave C.9.1 (a)
shockcordblock line	2					
Retraction shockcord	2			Shockcord		
Trapeze shockcord	1			Shockcord		
Rear cross beam rigging						
(optional)Chicken line	2					
	2			HK 404 16 mm		±2mm diam. sheave
(optional) Retraction shockcord	1					
(optional) Shockcord block tie rope	2					

SECTION J: NACRA 15 HULL ARRANGEMENT



Section K: NACRA 15 SAIL ARRANGEMENT



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