

Nacra Class Rules Inter 18, Inter 20

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0.	ISAF	International Sailing Federation
	MNA	ISAF Member National Authorities
	Nacra	Nautical Sports bv and their licensees
	INCA	International Nacra Class Association
	NNCA	National Nacra Class Association
	ERS	Equipment Rules of Sailing.
	RRS	Racing Rules of Sailing.

1. OBJECT OF CLASS RULES

1.1 The international Nacra Class Catamarans are each a one design manufacturers class. The rules, official and specifications are intended to ensure that the catamarans of these named classes are as nearly as possible the same in regard to shape, weight of hulls, daggerboards, rudders, spars, sails, and that equipment is simple, functional and dependable.

The ultimate intent is the use of only racing tactics and sailing skill to increase boat speed.

2. PROTECTION OF INTERNATIONAL NACRA CLASS DESIGNS

2.1 **THE HULLS**, daggerboards, rudders, spars, standing rigging, running rigging, fittings, equipment and sails are strictly controlled.

Interpretation of these class rules shall be given by NNCA in consultation with proper committees of the International INCA.

In the event of a conflict between rules, official plans, measurement form and/or measurement diagrams, the matter shall be referred to INCA.

NOTE: To double guard against "loophole destruction's" of these international Class Catamarans and there potential for lasting racing pleasure, every deviation from past practice or precedent which is not specifically spelled out by plans, specifications or Design Rule is assumed illegal until approved and thus recorded in writing by those administering the Class Design Rules.

2.2 MOLDS

All molds, patterns and templates for the hulls, daggerboards and rudders shall be constructed solely by Nacra, for INCA.

2.3 **ALTERATIONS OF MOLDS:** No alteration shall be made to any mold, official pattern or template.

2.4 **MEASUREMENTS OF MOLDS:** Tolerances are given to allow for minor variations not inconsistent with good building practice and distortion through age. Any intentional variation within these tolerances is prohibited.
Each mold shall be measured prior to commencement of production and thereafter annually by a measurer approved by INCA.

3. HULLS, DAGGERBOARDS AND RUDDERS

3.1 **THE MANUFACTURE** of hulls, daggerboards and rudders is strictly controlled by INCA. Licenses to build these components are issued by Nacra, for INCA.

3.2 LENGTH OVERALL OF THE HULLS

The length overall of the hulls must be : 5520 mm for the *Inter 18* and 6100 mm for the *Inter 20*, outside rudder pintles, corresponds to the horizontal distance between the verticals passing through the extremity of the hulls, the boat being leveled on its waterline.

3.3 ALTERATIONS TO HULLS, DAGGERBOARDS AND RUDDERS

Grinding, planing, sanding and/or application of putty, fillers and coating on the outside surface is permitted provided that it is undertaken to fair local imperfections on these surfaces or to improve the surface finish provided that no part of the catamaran is thereby caused to be outside the measurement tolerances.

3.4 LIGHTENING OF THE HULLS

The hulls shall not be lightened in any manner.
One inspection port per hull is installed and shall not be altered.

3.5 RUDDERS

The rudders and rudder system, including the method of attachment to the transom is not to be modified. Rudders may be raked to attain helm balance.
The hiking stick may be altered.

3.6 DAGGERBOARDS

No part of the daggerboard well shall be removed or added for the purpose of varying rake.
All daggerboards manufactured by Nacra are legal.

4. SPARS

4.1 CONSTRUCTION

The material, method of construction and design of the spars shall be in accordance with these rules and official Spar Plan. The mast, spreaders, boom, tiller and tiller tie bars shall be manufactured only by Nacra, for INCA.

4.2 MAST

The mast and the equipment on the mast shall not be altered.
Additional equipment shall not be installed.

4.3 SPREADERS

The spreaders shall not be altered.
The diamond wires are to be securely attached at the spreader ends.
Only Nacra adjustable rake spreaders and Nacra carbon spreaders are allowed.

4.4 BOOM

The boom shall not to be altered, the equipment in - and on the boom may be altered.
Additional equipment may be installed.
The extrusion diameter must be : 60 mm h x 38 mm w

4.5 SPINNAKER POLE

The spinnaker pole shall not to be altered.
The spinnaker pole system may be altered.
Additional equipment may be installed.

4.6 MAIN BEAM

The main beam, the equipment in - and on the main beam are not to be altered.
Additional equipment shall not be installed.
The maximum extrusion length of the aluminum profile is 2550 mm

4.7 REAR BEAM

The rear beam, the equipment in - and on the rear beam are not to be altered.
Additional equipment shall not be installed.
The maximum extrusion length of the aluminum profile is 2455 mm

4.8 LIGHTENING OF THE SPARS

No holes shall be drilled, filled or cut into any manufacturer supplied component, spar or casting for the purpose of reducing weight.

5. RIGGING

5.1 CONSTRUCTION

All standard rigging (excluding diamond wires) shall conform with the wire types and diameters shown in the manufacturers rigging schedule.

Running rigging and associated fittings, sizes, types and lengths are not to be altered. Rope tails on halyards are permitted.

Halyards must be long enough to raise and lower the sails while the boat is in an upright position. The jib halyard cleating shall not be altered.

Rigging schedule

Wire type	Wire	Diameter
Shrouds	1x19 1 x 7 is allowed	5/32
Forestay	1x19 1 x 7 is allowed	5/32
Diamond Wire	1x19	5/32
Trapeze Wires	free	-
Bridle	1x19	5/32

5.2 RUNNING RIGGING

Running rigging may be altered, with maximum reduction of :

Main sheet 8:1

Jib sheet 2:1

5.3 MAIN AND JIB LUFFS tension systems.

Main downhaul reduction may be altered, with maximum reduction of 16:1

Jib downhaul reduction shall not to be altered and must be 3:1

5.4 TRAPEZE

Trapeze system may be altered.

5.5 FOOT STRAPS, SAFETY LINES

Foot straps may be installed. Safety lines may be altered.

5.6 ALTERATIONS

Lengths of bridle wires are not to be altered. Jib tack attachment shall not be below bridle intersection.

The forestay or its extrusion is to be attached at the roller furling (only on the *inter 18*).

The forestay, shrouds, and diamond wires shall not be adjusted while racing.

5.7 EQUIPMENT may be replaced by strict same as the current or previously supplied Nacra series production equipment. All such equipment supplied by Nacra and approved by INCA shall be considered class legal.

5.8 RACING

If during a racing series, failure of a part appears imminent or is damaged or broken, only the affected equipment may be repaired or replaced.

Repair or replacement shall only be made using class legal equipment.

6. SAILS AND BATTENS

6.1 CONSTRUCTION

The method of construction and design of the sails shall be in accordance with the Sail plan. The sails for the *Inter 18 and Inter 20* shall be build for INCA from patterns and sail cloth approved by INCA.

Sails shall be manufactured by builders licensed by Nacra, for INCA. Battens may be altered. (only one batten per pocket is permitted).

6.1a SAILS

Sails and spinnaker of the following sail makers are allowed:

- Performance Sails
- Elliot/Pattison

6.1b Spinnaker Rules.

Maximum spinnaker area for the *Inter 18* is **21 m²**

Maximum spinnaker area for the *Inter 20* is **25 m²**

Spinnaker-pole may reach to a maximum of 80 cm. In front of the bow of the hull. This is measured in a diagonal line from the attachment of the point of the pole on the main beam.

- RRS 50.2 (last sentence) shall not apply.
It is allowed to attach the spinnaker pole to the front beam.

- RRS 50.4 shall be amended to read 75%.

6.1c Jib, spinnaker and mainsail

The Myler- and the Dracon sails for the *Inter 18* have different measurements. A small/big jib and/or spinnaker may be used during a Nacra sailing event. However these sails shall not be changed for a different seize during that event.

6.2 ALTERATIONS

The mainsail, jib and spinnaker shall not be altered, only repair is permitted. Tell-tales and tape may be attached to any part of the mainsail, jib or spinnaker. Class insignias, sail numbers and the National letters shall not be repositioned. Class insignias shall not be altered in any manner. Sail numbers and the National letters are not required on the spinnaker.

6.3 LUFF ROPE

The entire mainsail luff rope must be in the mast luff grooves.

7. BOAT WEIGHTS: Class Legal Minimums

7.1 All boats shall have a fixed number of crew and a minimum class legal weight as given in

7.1a.

7.1.a	Type	Minimum Boat weight	Crew
	<i>Inter 18</i>	180 kg	2
	<i>Inter 20</i>	190 kg	2.

7.2 BOAT WEIGHT

Boats shall be weighed in accordance with the official INCA measurement certificate. Boats must always meet their respective class legal weight when racing as a one design class. An official INCA measurement certificate must be made available when racing as a class. All boats may be weighed at National and International Nacra Class events.

7.3 CORRECTION WEIGHTS

The respect of the weight declared is the responsibility of the crew, which may be controlled and protested at any time during a race.

Boat weights (lead) must be secured on the outside of the starboard side of the main beam and be easily accessible for inspection.

8 SAFETY

The crew shall be able to demonstrate their capability to **re-right** the boat.

Minimum mandatory equipment to be onboard as given in 8.1a to 8.1d :

8.1a An **approved flotation device** must be worn by each crewmember while racing.

8.1b A **righting line** of 10 mm minimum diameter and 4.25 m minimum length.

8.1c **One paddle.** If required by the Sailing Instructions.

8.1d **One compass.** If required by the Sailing Instructions.

9 COMMUNICATIONS, RULE INTERPRETATION AND AMENDMENTS

9.1 Valid questions must be (e)mailed to INCA or to the NNCA

9.2 Class rules may vary slightly from one country to another.

10 VALIDITY CLASS RULES

10.1 **THE VALIDITY** of these Class Rules will end as soon as these Class Rules are converted into Class Rules in SCR format of ISAF and published onto the website "nacrasailing.org".

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