

i550 Class Association Rules

Version 2 – Adopted 2/1/2014

1 Intent

- 1.1 It is the intent of this Rule to provide a level basis for racing to yachts built from the specifications of the i550 plans within the bounds of the i550 Class Association Rules.

2 Hull Construction

- 2.1 Hull panels shall be constructed so that the panel weight is substantially similar throughout. Plywood panels of one quarter inch nominal thickness shall always be construed to meet this rule, or a non-plywood composite with a uniform base laminate schedule throughout. Any hull laminate may have specific reinforcements for anticipated loads, but shall not be generally lighter in the ends, for instance. (see Rule 4.2)
- 2.2 Hull side and bottom panels shape shall be cut to the specifications of the i550 plan set as provided by the copyright holder and assembled to fit within the bounds provided with this section (plywood). The shape of a non-plywood hull shall be similarly controlled.
- 2.3 Chines may be rounded in nature, however all hull panels shall make contact along the chine (plywood). The amount of chine radius for non-plywood hulls, and the allowable deviation from designed shapes that this rule allows by choosing other than inner-corner to inner-corner contact, shall be the same for any hull construction.
- 2.4 (Deleted)
- 2.5 Fair curve of cabin roof adjacent to the mast step or partners shall be no less than 35" (889mm) above the bottom of the hull at station 89.
- 2.6 Cockpit may only extend 106" (2692mm) forward of the aft face of the transom.
- 2.7 Cockpit and interior layouts are optional
- 2.8.1 The overall length of the hull shall not exceed 216" (5486mm) excluding all rudder fittings, bowsprit fittings, drain plugs and stem fittings.
- 2.8.2 No fitting or equipment that has the effect of elongating the skin of the boat beyond 216" (5486mm) in length is permitted. Outboard rudder cassettes shall not be more than 1.5" (38mm) wider than the enclosed foil in any direction, near the projected plane of the hull skins.
- 2.9.1 Beam at sheer measured 90" (2286mm) forward of the aft face of transom shall not exceed 90.6" (2301mm).
- 2.9.2 Beam at chine measured 90" (2286mm) forward of the aft face of transom shall be 46" (1168mm) +/- 1" (25mm).
- 2.9.3 Frame angle measured 90" (2286mm) forward of the aft face of transom shall be within 0.5" (13mm) of plan drawings, when measured 33" (838mm) from chine.
- 2.10.1 Beam at sheer measured on the aft face of transom shall be 95" (2413mm) +/- 1" (25mm).

- 2.10.2** Beam at chine measured on the aft face of transom shall be 47.7" (1212mm) +/- 1" (25mm).
- 2.10.3** Frame angle measured on the aft face of transom shall be within 0.5" (13mm) of plan drawings, when measured 28" (711mm) from chine.
- 2.11.1** Beam at the chine 6" (152mm) aft of the stem shall not exceed 4.5" (114mm).
- 2.11.2** Freeboard measured at 6" (152mm) aft of the stem shall be 28" (711mm) +/- 1" (25mm).
- 2.12.1** Maximum deviation from designed hull shapes from sheer to chine is +1" (25mm) and -.25" (6mm). Hull side panels from sheer to chine shall be a shape that can be substantially followed by a 1/4" (6mm) thick wood batten. The top 2" (51mm) of hull side panel and any chine radius complying with 4.5 shall be excluded from this measurement.
- 2.12.2** Maximum deviation from designed hull shapes from chine to chine shall be +/- .25" (6mm).

3 Appendages

- 3.1** Keel and rudder may be constructed of any material not restricted by 4.2.
- 3.2** A Keel bulb is required.
- 3.3** Keel bulb shape is optional, but must have sufficient height and width to contain a sphere with a minimum diameter of 3.5" (89mm).
- 3.4** Keel foil profile and chord are optional. Maximum keel foil chord shall be 13.75" (350mm). Maximum keel foil width shall be 2" (51mm).
- 3.5** Maximum depth of keel measured from the hull bottom shall be 49.6" (1260mm).
- 3.6** Maximum keel weight shall be 185 lbs (83.9kg) and minimum keel weight shall be 150 lbs (68kg).
- 3.7** Keel may be fixed or retractable.
- 3.8** Rudder(s) may be any shape or size.
- 3.9** Pivot axis of rudder(s) shall be with 2" (51mm) of the aft face of the transom.

4 General Requirements

- 4.1** Minimum weight in dry condition with all water removed shall be 800 lbs (363 kg). The hull, keel, rudder, rig, shrouds, stays, and required running rigging shall be included. All unsecured equipment, and sails, motors, tow rope, anchor and rode, safety gear, and personal gear shall be removed.
- 4.2** Ballast materials, which are defined as any material added to the boat for the purpose of satisfying rule 3.6 or 4.1, are restricted to the keel bulb and corrector weights.
- 4.3** Materials with a density greater than lead are prohibited.
- 4.4** **Corrector weights**
 - 4.4.1** An i550 yacht failing to satisfy rule 4.1 shall add corrector weights as follows:
 - 4.4.2** Weights shall be permanently affixed and shall not be moved during any competition.
 - 4.4.3** Weights shall be easily visible and clearly labeled with actual weight in pounds and kilograms.

- 4.4.4 Weight and location of said weight shall be stated on the Measurement Certificate.
- 4.4.5 Up to 20 lbs (8.9 kg) of corrector weight may be secured at the owner's/builder's discretion. Secured optional equipment may replace any part of the 20 lbs (8.9 kg). It shall be permanently labeled with weight in pounds and kilograms.
- 4.4.6 All remaining corrector weight shall be divided equally and separated fore and aft by a distance in inches equal to the total weight of the remaining corrector weight in pounds multiplied by 1.9. (or separated fore and aft 106mm for every kilogram)

5 Rig and Sail Requirements

- 5.1 Spar section and material is optional.
- 5.2 All measurement bands shall be of a contrasting color to the spars and no less than 0.5" (13mm) wide.
- 5.3 **Mast Spar**
 - 5.3.1 Mast spar shall have band 1 located with its lower edge not greater than 347.5" (8826mm) from the hull bottom at station 089 and at least 1" below the tip of the mast.
 - 5.3.2 Mast spar shall have band 2 located with its lower edge not greater than 283.5" (7201mm) from the hull bottom at station 089.
 - 5.3.3 The head of any mainsail shall not be hoisted above the lower edge of band 1.
 - 5.3.4 The head of any headsail shall not be hoisted above the lower edge of band 2.
 - 5.3.5 The forestay shall intersect with the mast no more than 292" (7315mm) from the hull bottom at station 089.
 - 5.3.6 The head of any spinnaker shall not be hoisted from a point greater than 1" (25mm) above the lower edge Band 1.
 - 5.3.7 The upper edge of the boom at the mast shall be no more than 294" (7468mm) below the lower edge of Band 1.
- 5.4 **Boom Spar**
 - 5.4.1 Boom spar shall have band 3 located with its forward edge not greater than 107" (2717mm) aft of the aft face of the mast sail track.
 - 5.4.2 The clew of the mainsail shall not extend aft of the forward edge of Band 3.
- 5.5 **Bowsprit Spar**
 - 5.5.1 If the Bowsprit spar extends more than JC forward of the forward face of the mast, it shall have band 4 located with its aft edge JC forward of the forward face of the mast.
 - 5.5.2 The bowsprit may only be used to secure the tack of a sail measuring as a spinnaker.
 - 5.5.3 The bowsprit shall be attached near the stem by any means available.
- 5.6 **J Measurement and Headstay location.**
 - 5.6.1 Intersection of the headstay and the bearing surface of the bow fitting shall be between 1" (25mm) forward and 2" (51mm) aft of the forward face of the bow.
 - 5.6.2 J measured from the forward face of the mast to the intersection of the headstay and deck shall not exceed 89.5" (2273mm).

5.6.3 JC (JSP) measured from the forward face of the mast to aft side of spinnaker tack line when held perpendicular to the bowsprit spar shall not exceed 148" (3759mm).

5.7 Mainsail

5.7.1 No girth may exceed 108" (2743mm).

5.7.2 The head of the mainsail shall not exceed an included angle of 100 degrees, measured to the last yard (meter) of luff.

5.7.3 The tack of any mainsail shall not extend below the upper edge of the boom.

5.8 Headsail

5.8.1 No headsail may be tacked forward of the forestay attachment point.

5.8.2 No headsail shall be sheeted outside of the outermost shrouds, except when on a leg of the course that is a fetch.

5.9 Spinnaker

5.9.1 A spinnaker is a three cornered sail set forward of the mast, where the half width is greater than 75% of the foot dimension and which does not contain battens.

5.9.2 A spinnaker shall only be sheeted at a single point and shall not include a yardarm.

5.10 Ancillary sail rules.

5.10.1 One mainsail, headsail, and spinnaker may be purchased in any given calendar year.

5.10.2 Transfer of boat ownership shall entitle the new boat owner to the right to purchase a single additional sail, if the boat has previously completed its allotted sail purchases for the year. This rule may be used by an initial owner of a new boat to purchase four (4) new sails.

5.10.3 Except in the event of an irreparably damaged sail, only one main, one jib, and two spinnakers may be used for a single class regatta. No other sails are permitted.

6 Safety

6.1 The yacht shall carry an appropriate anchoring device and line.

6.2 The yacht shall carry an appropriate tow line of not less than 50'

6.3 A white light shall be carried onboard at all times.

6.4 A bucket of no less than 2 gallons shall be carried onboard at all times.

6.5 A throwable flotation device shall be carried onboard and accessible at all times.

6.6 A means of propulsion other than sail is required onboard at all times. This may be paddle, oar, motor (electric or gas).

6.7 Keel shall be secured in the down position at all times while racing.

6.8 Flotation shall be ensured through the use of sealed buoyancy chambers, securely installed foam, or secured air bladders, with a minimum volume of 9 cubic feet [255 liters], providing at least 570 pounds [259kg, 2535N] of buoyancy.