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J[®]
22

Class Rules

J/22



The J/22 was designed in 1983 by Rodney Johnstone and was adopted as a World Sailing class in 1994.

sport / nature / technology


World Sailing
Class Association

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PART I - INTRODUCTION

This introduction only provides an informal background and the International J/22 Class Rules proper begin on the next page.

The J/22 was designed and built by Rodney Johnstone in 1983. The International J/22 is a one-design class created to fulfil the diverse needs of recreational sailors such as cruising, one-design racing, day sailing and handicap racing. These rules are intended to preserve important design characteristics: ease of handling, low cost of ownership, safety and comfort.

J/22 hulls, hull appendages, mast spars and boom spars shall only be manufactured by builders licensed to do so under the copyright of J Boats, Inc - in the class rules referred to as licensed builders. This equipment is required to comply with the International J/22 Building Specification.

J/22 sails are measurement controlled to the designated dimensions and may be made by any manufacturer.

J/22 hulls, hull appendages, mast spars and boom spars shall, after having left the builder, or sails after certification, only be altered to the extent permitted in Section C of the class rules.

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

NOTES: 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 II - 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

- MNA World Sailing Member National Authority
- ICA International J/22 Class Association
- NCA National J/22 Class Association
- ERS Equipment Rules of Sailing
- RRS Racing Rules of Sailing

A.3 AUTHORITIES

- A.3.1 The international authority of the class is World Sailing which shall co-operate with the ICA in all matters concerning these **class rules**.
- A.3.2 Notwithstanding anything contained herein, the ICA has the authority to withdraw a measurement **certificate** and shall do so on the request of World Sailing.
- A.3.3 Neither World Sailing, the MNA, the ICA, the NCA nor a class measurer, an international measurer or an **equipment inspector**, is under any legal responsibility in respect of these **class rules** for the accuracy of measurement. No claim arising against any of them shall be entertained.
- A.3.4 The **Certification Authority** for all items except sails is the ICA.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 World Sailing has delegated its administrative functions of the class to the ICA. The ICA may delegate part or all of its functions, as stated in these **class rules**, to an NCA.
- A.4.2 In countries where there is no NCA, or the NCA does not wish to administer the class, its administrative functions, as stated in these **class rules**, shall be carried out by the ICA which may delegate part or all of the administration functions to the appropriate MNA.

A.5 CLASS RULES CHANGES AT EVENTS

- A.5.1 Appendix I - Event Rules Changes Options I.2, I.3 and I.4 apply only when activated in accordance with RRS 87.

A.6 CLASS RULES AMENDMENTS

- A.6.1 Amendments to these **class rules** must follow procedures defined in the International J/22 Class Constitution and are subject to the approval of World Sailing in accordance with World Sailing Regulations.

A.7 CLASS RULES INTERPRETATIONS

- A.7.1 Interpretation of **class rules** shall be made by World Sailing, which shall consult with the **ICA** and J Boats, Inc..
- A.7.2 In the event of discrepancy between any rules, drawings, specifications or **Measurement** Forms, the matter shall be referred to World Sailing.
- A.7.3 Any interpretation of **class rules** at an event may be made by the **ICA** Technical Committee representative at the event or by the Race committee constituted in accordance with the RRS, Appendix N. Such interpretation shall only be valid during the event and shall, as soon as practical after the event, be referred to World Sailing and the **ICA** to consider any adjustments that may be necessary going forward.

A.8 INTERNATIONAL CLASS FEE AND LICENSED MANUFACTURERS

- A.8.1 **Hulls, hull appendages** and **mast** and **boom spars** may only be manufactured by licensed builders which are licensed by J Boats, Inc. Manufacturing must be in conformance with the building specifications from J Boats, Inc. and these **class rules**, including all plans.
- A.8.2 There is an International Class Fee payable to World Sailing for each new **hull** built. This plaque fee is controlled by an agreement between J Boats, Inc., its licensed builders and World Sailing.
- A.8.3 The licensed **hull** builder shall complete parts B & C of the class **Measurement** Form, which shall include both **keel** weight before assembly and “Builder’s Weight”, and supply that form to the **ICA**, J Boats, Inc. and the new owner.

A.9 SAIL NUMBERS

- A.9.1 **Sail** numbers shall correspond to the designated portion of the **hull** identification number moulded into, or permanently affixed to, the transom of each **boat**.
- A.9.2 When a **boat** is chartered or loaned, the **sail** number of the **boat** may be that of the class member in charge of the **boat**.

A.10 CLASS MEMBERSHIP REQUIREMENTS

- A.10.1 The **boat’s** owner(s) shall be members of their country’s **NCA** and the **ICA**.
- A.10.2 The **boat’s** driver(s) shall be members of their country’s **NCA** and the **ICA**.

A.11 MEASUREMENT FORM

- A.11.1 Each Measurement **Form** shall record the following information:
- (a) Part A – Owner Declaration:
 - (i) Name of yacht
 - (ii) Fleet # (optional)
 - (iii) **Hull #**
 - (iv) Owner name(s)
 - (v) Owner address(s)
 - (vi) Owner phone number(s)
 - (vii) Owner email address(es)
 - (viii) Owner’s signature
 - (ix) Date of signature

- (b) Part B – Builder Measurements – if the following measurements were reported by the builder, they shall be reported on the Measurement Form:
 - (i) Lead **keel** weight before assembly
 - (ii) Builder’s **hull** and **keel** weight prior to delivery
 - (iii) **Sail** number
 - (iv) **Hull** identification number
 - (v) Date completed
 - (vi) Builder’s code
- (c) Part C – Declaration (by the Builder):
 - (i) Date of issue of builder’s declaration
 - (ii) A list of items that have been checked and passed for **certification**
 - (iii) The name(s) of measurer(s) involved in the **certification** process.
- (d) Part D – Yacht Measurements:
 - (i) **Keel** measurements
 - (ii) **Hull** compliance
 - (iii) **Rudder** measurements
 - (iv) **Mast** measurements
 - (v) Main **boom** measurements
 - (vi) **Spinnaker pole** measurements
 - (vii) Interior standard equipment
 - (viii) Deck hardware
 - (ix) Prohibited deck equipment or changes
 - (x) **Hull weight** measurements
- (e) Declaration by **Measurer**
 - (i) To be signed by official **measurer**
- (f) Part E - Declaration by Owner for required Portable Equipment
 - (i) As designated in C.5.1

A.11.2 It is the responsibility of an owner to ensure that the **boat** complies at all times with the current **class rules**. In the event of a charter/loan, it is the responsibility of the charterer/borrower to maintain the **boat** in compliance with the **class rules** for the duration of the charter.

A.11.3 A **hull, rigging** and **sails** shall only be **certified** by a measurer recognized by the **ICA**.

A.11.4 A measurer shall not measure a hull, rigging or sails, built by himself or in which he is an interested party or has a financial involvement.

A.11.5 A yacht shall not be recognized as a *J/22* until its official measurement certificate is registered with the **ICA**.

A.12

A.13 INITIAL HULL MEASUREMENT

A.13.1 For a **Measurement** Form to be issued to a **hull** not previously **measured**:

- (a) **Measurement** shall be carried out by a class **measurer** (recognized by the **ICA**) who shall complete the appropriate documentation.
- (b) The documentation and **measurement** fee, if required, shall be sent to:

- (i) The **MNA** (if applicable for a country), who will then forward the required documentation and **measurement** fee to, the **Certification Authority (ICA)**.
- (ii) Or directly to the Certification Authority (ICA) for those countries without a requirement for a fee for the MNA.
- (c) Upon receipt of satisfactorily completed documentation and a certification fee, if required, the Certification **Authority** shall issue a **Measurement Form**.

A.14 VALIDITY OF MEASUREMENT FORM

A.14.1 A **hull Measurement Form** becomes invalid upon:

- (a) the change to any items recorded on the **hull Measurement Form** as required under A.11.1, except the inventory of required Portable Equipment (A.11.1(f)),
- (b) change of ownership,
- (c) withdrawal by the Certification Authority,
- (d) modifications, fairing or repairs beyond what is described in SECTION C
- (e) the issue of a new **Measurement Form**.

A.14.2 The Measurer shall report on the measurement form anything which is considered to be a departure from the intended nature and design of the yacht, or to be against the general interest of the class. In such a case a certificate may be refused or withdrawn even if the specific requirements of the rules are satisfied.

A.14.3 At an event, any alleged or suspected alteration(s) to the configuration of a yacht's **hull**, deck, **keel**, **rudder**, fittings or **spars**, or other equipment for which specific descriptions are not stated in the Rules or Specifications, shall be compared by a Measurer appointed by the IJ22CA to a sample of ten other yachts, and shall be handled as follows:

- (a) The disputed yacht shall be accepted if she does not show any evidence of having been altered and if she has dimensions equal to or between those of the maximum and minimum dimensions obtained from the sample of ten yachts.
- (b) If there is evidence of any alterations having been made or if the dimensions are greater or less than those of the maximum and minimum obtained from the sample of ten yachts, the matter shall be referred to the Protest Committee for action.
- (c) Every alteration shall be presumed to provide a material benefit to the yacht's potential velocity made good and/or handling characteristics (including, but not limited to sail handling, boat handling, acceleration and righting moment). If this presumption is not rebutted, the yacht shall be disqualified. If the presumption is rebutted, a penalty less than disqualification (including no penalty) may be applied at the discretion of the Protest Committee.

A.15 HULL RE-MEASUREMENT

A.14.1 The **Certification Authority** may issue a **Measurement Form** to a previously measured **hull**:

- (a) When it is invalidated under A.13.1 (a), (c), or (e), after receipt of a new **Measurement** Form and **measurement** fee if required.
- (b) When it is invalidated under A.13.1 (d), at its discretion.
- (c) When it is invalidated under A.13.1 (b), after receipt of section A of the **Measurement** Form signed by the new owner, stating that there have been no changes to any of the measurement components on the form since last measured, and payment of the certification fee, at its discretion.

A.16 RETENTION OF MEASUREMENT DOCUMENTATION

A.16.1 The **Certification Authority** shall retain the original **Measurement** Form upon which the current certificate is based. The **Certification Authority** shall also keep a copy of all measurement certificates issued. These may be scanned and kept electronically.

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 these **class rules**.
- (b) have a valid **Measurement Form**.

B.2 CLASS ASSOCIATION MARKINGS

- B.2.1 There shall be a current J/22 Class membership sticker on the outer face of the transom near the upper starboard corner.
- B.2.2 **Sails** shall carry a Class Association Royalty label sewn onto the starboard side of the **sail** near its **tack**, or on a spinnaker near the **clew**. Royalty tags shall not be transferred from one **sail** to another.

B.3 DOCUMENTATION TO BE CARRIED ABOARD WHILE RACING

- B.3.1 The **boat's** current **Measurement Form** shall be carried at all times while *racing*.

B.4 EVENT LIMITATION MARKS

- B.4.1 **Event Limitation Marks** may be used by **equipment inspectors** to identify equipment that has been inspected for compliance on a particular **boat**, for a particular event. Such inspected and marked equipment shall not be replaced for the duration of the event without permission of the race committee. **Event limitation marks** may use serial numbers on labels with event stamps or may take the form of seals to prevent adjustment of **rigging** or shims. If serial numbers are used, they shall be recorded on event forms.

PART III - REQUIREMENTS & 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 rules in Part II are **closed class rules**. **Certification** 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) **ERS** part 1 Use of Equipment shall apply.
- (b) **RRS** 42.3(b) is modified by adding. The **crew** shall not hang on the **mast** or **shrouds** to promote roll tacking or gybing.
- (c) **RRS** 42.3(c) is modified to read “Except on a beat to windward, when surfing or planing conditions exist, the boat’s **crew** may pull once, per gust of wind, or per wave, on the **sheets** (excluding the **spinnaker guy**) of any **sail** to initiate surfing or planing. The **spinnaker guy** shall not be pulled other than in a normal trimming manner.”

C.2 CREW

C.2.1 LIMITATIONS

- (a) The **crew** shall consist of a minimum of two people and the combined weight (in swim wear) of all **crew** members shall not exceed 275kg.
- (b) For an event of 2 or more consecutive days (excluding any lay days) the **crew** shall not be altered. For such events, **crew** weight will be established no earlier than two days prior to the first race of the event, and once established, will not be subject to further measurement. The sailing instructions may change this rule.

C.2.2 CREW POSITIONING

- (a) **RRS** 49.1 is modified to permit the **crew** to project themselves outboard, while sitting on the deck, by hand-holding any **running rigging** in its standard position, or any fixed equipment on the boat other than **shrouds** or chainplates.

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

The **boat** shall be equipped with **personal flotation devices** (PFD) for each **crew** member to the minimum standard ISO 12402-5, (level 50), USCG Type III, CAN CGSB-65.7-2007, or equivalent.

C.3.2 OPTIONAL

The following optional equipment may be carried on board:

- (a) Markers, pens, pencils and paper for recording information.
- (b) A cooler or other similar device to keep food and refreshments cold.
- (c) Clothing for the **crew**.
- (d) Food and beverages for the **crew**.
- (e) Health and hygiene products (e.g. sunscreen)

- (f) Mobile telephone

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance the World Sailing Advertising Code, as per World Sailing Regulation 20.

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

(a) FOR USE WHILE RACING

- (i) At least one fixed marine type compass of magnetic card or digital type capable only of instantaneous readout.
- (ii) One manual bilge pump.
- (iii) One anchor with or without chain of combined minimum weight of 5kg with 30m of non-floating warp having a minimum diameter of 8mm. When carried, the anchor, chain and warp shall be secured together ready for use and shall not be stowed on or under the cabin sole over the **ballast keel**. The minimum weight of the anchor shall be 3 kg and the maximum weight of the chain shall not exceed 4kg..
- (iv) One fog horn.
- (v) One bucket with a minimum 9-litre capacity and attached lanyard.
- (vi) Personal Flotation Device for each **crew** member.
- (vii) A marine first aid kit with manual.
- (viii) Code Flag B.
- (ix) A copy of the current Racing Rules.

(b) NOT FOR USE WHILE RACING

- (i) One paddle not less than 1200mm in length, when fully extended.
- (ii) Two fenders of not less than 152mm in diameter and not less than 406mm in length, or two spherical fenders not less than 240mm in diameter.
- (iii) A tow line at least 19 metres in length and at least 6mm in diameter. The anchor line, mainsheet, jib or spinnaker **sheets**, shall not be used to satisfy this rule.
- (iv) Any local or government mandated safety equipment.

C.5.2 OPTIONAL

(a) FOR USE WHILE RACING

- (i) Electronic or mechanical timing devices, but not capable of providing any other tactical or navigation information, except as provided in (iv), below.
- (ii) At least one compass, either magnetic card or digital type capable of instantaneous readout and heading trend information, but not capable of providing any other tactical or navigation information, except as provided in (iv), below. The compass may be GPS-enabled, but shall not give location information.
- (iii) At least one instrument capable of giving speed through the water, or over the bottom, but not capable of providing any other tactical or navigation information, except as provided in (iv), below. The speed

- instrument may be GPS-enabled, but shall not give location information.
- (iv) Instruments providing a combination of the functions of (i), (ii) and/or (iii) above but not capable of providing any other tactical or navigation information.
 - (v) Any instrument capable of providing water depth, but not capable of providing any other tactical or navigation information.
 - (vi) Any replacement **rigging** or equipment as might be useful to repair or replace minor damages or equipment failures on the water.
 - (vii) Tape or other materials to make temporary repairs or protect from chafing.
 - (viii) One spare tiller and/or tiller extension any of which may be substituted on the water.
 - (ix) Cushions for the V-berth.
 - (x) Batteries capable of powering the electronic devices on board that do not have their own power supply.
 - (xi) Any spinnaker bag positioned below deck to facilitate the launch of the spinnaker through the main companionway.
 - (xii) Tool kit with customary tools and spare parts.
 - (xiii) Portable toilet.
 - (xiv) Handheld VHF radio.
 - (xv) Portable music/radio entertainment system.
 - (xvi) Additional safety devices and equipment to owner's requirements or to comply with local regulations.
 - (xvii) Labels for equipment and **running rigging** including adhesive numbered guides for repeating settings.
 - (xviii) Yarn, magnetic tape, nylon tape, etc. to be fixed to the standing **rigging** as wind indicators.
 - (xix) A **mast**-top wind indicator.
 - (xx) Lifelines, bow pulpit and stern rail to meet owner requirements.
 - (xxi) A tube placed diagonally at the front corner of the main hatch to limit friction while the spinnaker is being launched and retrieved.
 - (xxii) Shock cord or other elastic when used to secure lines and equipment, but not to store energy, except as permitted in C.7.3 (a).
 - (xxiii) A device to prevent the **spinnaker guy** from dropping over the bow. This device shall not increase the overall length of the boat by more than 200mm.
 - (xxiv) **Sail** ties and lines for, as examples, docking, tying down **sails**.
 - (xxv) Winch handles.
 - (xxvi) Navigation lights.
 - (xxvii) Containers for trash and/or storage of any other optional or mandatory equipment.
- (b) NOT FOR USE WHILE RACING
- (i) Mobile telephones or any devices capable of receiving data transmissions.
 - (ii) Navigation devices with charting capabilities.
 - (iii) Devices such as GPS that give location information.
 - (iv) Fenders and dock lines.

- (v) Lifting equipment for launching and retrieving the boat from the water.
- (vi) Genoa tracks and affixed cars with blocks attached.
- (vii) Outboard motor bracket, engine, fuel and extinguishers.
- (viii) Cleaning supplies.

C.6 BOAT

C.6.1 WEIGHT

(a) **Boat weight** shall be a minimum of 857kg. Boats shall be weighed dry, including only the following items (all dry):

- (i) one set of jib **sheets** and jib cars with blocks
- (ii) one set of spinnaker **sheets** with permanently affixed blocks
- (iii) one mainsheet and associated blocks and attachments
- (iv) rudder and tiller assembly
- (v) **mast** and standard **mast** fittings
- (vi) **boom**
- (vii) **spinnaker pole**
- (viii) all running and **standing rigging**
- (ix) cabin floorboard
- (x) cabin step
- (xi) all required hatch and inspection port covers
- (xii) compass
- (xiii) and may include the following permanently installed optional equipment:
 - a. **corrector weights**, if required to meet minimum weight
 - b. bow and stern pulpits
 - c. stanchions and lifelines
 - d. running lights (without battery)
 - e. permanently-installed items such as:
 - i. foot blocks
 - ii. spinnaker launch bags
 - iii. diagonal tube above spinnaker launch bag
 - iv. outboard motor brackets or bracket flanges.
 - v. instruments allowed in C.5.2 (a) (i) to (v)

(b) Removal of any boat or corrector weight and optional equipment included at time of measurement is strictly prohibited when racing.

C.6.2 CORRECTOR WEIGHTS

Corrector weights must consist of metal with minimum density of 7.0 g/cc (i.e. iron, lead) positioned forward of, and be permanently affixed to, the main bulkhead, and aft of the aft (seat) bulkhead in two roughly equal portions.

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

The following are permitted without re-**measurement** or approval of the **Certification Authority**. Unless otherwise stated, items mentioned in this rule may be obtained from any manufacturer or supplier:

(a) MODIFICATIONS

- (i) Installation of permitted equipment with fasteners as required into or through the **hull**. Holes for mounting this equipment through cored sections of the **hull** may be encapsulated by replacing the core in the immediate vicinity of the hole with solid resin filler.
 - (ii) Backer plates of fibreglass, plastic, aluminum or stainless steel, may be used to help distribute loads from mounted hardware.
- (b) MAINTENANCE
- Cleaning and **hull** surface work like light sanding, painting, polishing, and waxing, which do not change the shape of the **hull**.
- (c) REPAIRS
- (i) Minor repairs to the surface of the **hull** that do not change the shape nor penetrate into the core material.
 - (ii) The filling or repair of old holes for previously installed equipment that may completely penetrate the **hull** or deck.

C.7.2 FITTINGS – MANDATORY

(a) FOR USE WHILE RACING.

- (i) Two **jib sheet** tracks, each not less than 305mm or more than 610mm in length and located as indicated on the deck plan shown in Section H.1 Plan E. Additional location holes may be drilled into these tracks for positioning the **jib** cars.
- (ii) Two **jib** cars with turning blocks may be used at any time to trim the **jib**. Turning block size is optional and blocks may ratchet.
- (iii) One **mainsail** traveller track, positioned as indicated on the deck plan shown in Section H.1 Plan E.
- (iv) Two winches positioned on the aft end of the cabin house on either side of the main hatch positioned as indicated on the deck plan shown in Section H.1 Plan E, and with a drum diameter not exceeding 70mm. The winches may be placed on flat or wedged risers not exceeding 30mm in height.
- (v) The vertical companionway hatch board shall originally be supplied by a licensed builder but may be replaced by one of the same design and material from any source.
- (vi) A sea hood forward of the main hatch as indicated on the deck plan shown in Section H.1 Plan E. The sea hood may include cleats and /or blocks for the **spinnaker pole** topping lift, **spinnaker pole** downhaul, boom vang and main, jib and spinnaker **halyards**. The cleats may be horn cleats or standard cam cleats.
- (vii) At least one fairlead for the **spinnaker pole** downhaul, the location of which is optional.
- (viii) At least two fairleads, port and starboard, for the **spinnaker guy** barber haulers (twings), the locations of which are optional.
- (ix) At least one cleat for the **backstay** adjuster line, the location of which is optional.
- (x) At least one turning block for the backstay adjuster line, the location of which is optional.
- (xi) At least two cleats and turning blocks for the **mainsail** traveller cross-haul, the locations of which are optional.

- (xii) A c-shaped stainless-steel male **mast**-base plate positioned as indicated as indicated on the deck plan shown in Section H.1 Plan E.
- (xiii) A metal bail attached to the bottom of the **mast** for attachment of the vang and Cunningham.
- (xiv) An extruded **mast** compression tube installed in the cabin under the **mast** base.
- (xv) Two hand rails of either wood or stainless steel mounted on top of the cabin house as indicated on the deck plan shown in Section H.1 Plan E.
- (xvi) Seven toe rails of wood or extruded plastic construction placed along the deck-**hull** joint as indicated on the deck plan shown in Section H.1 Plan E.
- (xvii) One step to enter cabin between the two cabin seats.
- (xviii) One main hatch covering of plexiglass or similar product.

(b) NOT FOR USE WHILE RACING.

- (i) One bow and two stern docking horn cleats as indicated on the deck plan shown in Section H.1 Plan E.
- (ii) Two bow chocks as indicated on the deck plan shown in Section H.1 Plan E.
- (iii) A cabin floorboard which may be made from plywood, extruded plastic or any non-exotic laminate, and which must be at least 12mm in thickness
- (iv) Two forward v-berth bin covers of plywood or plastic construction and which must be at least 6mm in thickness.
- (v) At least two water-tight cabin inspection ports, one aft on the vertical forward face of the bulkhead at the forward end of the cockpit air tank, and the other horizontal in the top of the v-berth air tank.
- (vi) At least one water-tight inspection port on the aft part of the cockpit air tank, near the transom.
- (vii) One hatch or other covering to enclose the forepeak.
- (viii) Two cabin seats, of either wood or moulded fibreglass construction.

C.7.3 FITTINGS – OPTIONAL

(a) FOR USE WHILE RACING

- (i) Ratchet block and/or cleat for the mainsheet.
- (ii) Ratchet blocks for the spinnaker **sheets**.
- (iii) Ratchet blocks for the jib **sheets**.
- (iv) Any number of cleats in other locations than the sea hood for use with sheets and/or control lines.
- (v) Any number of holders for drinks, winches handles, rope tails, main hatch, etc., the locations of which are optional.
- (vi) Any non-electronic wind indicator may be positioned in the masthead, **sail** and/or **rigging**.
- (vii) Any fixed VHF radio and antenna.
- (viii) One fixed platform to support the mainsheet cleating system attached either afore or aft of the center of the mainsheet traveller.
- (ix) Any foot rests/blocks may be attached to the mainsheet traveller bar, and anywhere on the cockpit seats, or on the foredeck centerline.

- (x) Lights for navigation, illuminating the deck or indicating boat at anchor may be installed on the **mast** and/or **spreaders**.
 - (xi) Elastic (shock) cord may only be used for the following purposes:
 - a. To hold down sails
 - b. To retain the throwable lifesaving device in the ready position in the cockpit,
 - c. To return the **backstay** adjuster toward the un-tensioned position,
 - d. As keepers to retain the tails of any control lines and other movable mandatory or optional equipment.
 - e. As part of the spinnaker launching bag system.
 - f. In the cabin to restrain loose equipment.
 - (xii) Nonslip materials may be added to the deck, cockpit, forward hatch and footrests.
 - (xiii) Wire, rope, or shock cord transport guides for a below decks spinnaker bag.
 - (xiv) Tape and other protective covers may be used on any part of the **rigging**.
 - (xv) An extender with a maximum length of 152mm and of no mechanical advantage to connect the 8-part **boom** vang system to the bail on the base of the **mast** for easier release when under high load.
 - (xvi) Fairleads, turning blocks, cheek blocks, cleats, and risers for leading any **sail** control line to a more convenient location on the deck, cabin house top or sea hood.
 - (xvii) Two risers, port and starboard, at the aft end of the cabin house, to which turning blocks, fairleads and cleats may be affixed for the **jib sheets** and the **boom** vang tail.
 - (xviii) One or more cleats to allow control lines to be cleated at several locations.
 - (xix) A spinnaker launch bag attached to the underside of the cabin house roof.
 - (xx) Brackets on the **mast** and main cabin bulkhead to attach compasses, timing devices and speed and depth readouts.
 - (xxi) A **mainsail** Cunningham system, which may include blocks, line, shackles, cleats and risers in any configuration.
 - (xxii) A **jib** Cunningham system, which may include blocks, line, shackles, cleats and risers in any configuration.
 - (xxiii) Winch handle pockets or pouches.
- (b) NOT FOR USE WHILE RACING
- (i) Inspection ports that may be fitted with ventilation devices. Such ventilation devices shall be removed and water tight covers installed during races.

C.8 HULL APPENDAGES

The following are permitted without re-**certification** or approval of the **Certification Authority**.

C.8.1 KEEL MODIFICATIONS, MAINTENANCE AND REPAIR.

(a) MODIFICATIONS

- (i) The **keel** shall be of moulded lead to the building specifications and cast in a mould supplied by J Boats, Inc.
- (ii) The external dimensions and configuration of the **keel** shall comply with the table of offsets contained in official H.1 Plan C. The **keel** may be overcoated in any base liquid or paste protective material or fibreglass and faired; provided that the fairing does not change the design shape of the **keel** and that the **keel** still meets all class measurement requirements.

(b) MAINTENANCE

- (i) Routine maintenance such as cleaning, painting and polishing is permitted without re-**measurement** and re-**certification**.

(c) REPAIR

- (i) Small repairs may be made to the **keel** without re-**measurement** and re-**certification** as long as they do not change the shape.

C.8.2 RUDDER MODIFICATIONS, MAINTENANCE, REPAIR and INSTALLATION

(a) MODIFICATION

- (i) The external dimensions and configurations of the rudder shall comply with the official rudder drawing and table of offsets contained in official H.1 Plan D. The rudder may be overcoated in any base liquid or paste protective material and faired, provided it complies with minimum dimensions in official H.1 Plan D.

(b) MAINTENANCE

- (i) Routine maintenance such as cleaning, painting and polishing is permitted without re-**measurement**.

(c) REPAIR

- (i) Small repairs may be made to the rudder without re-**measurement** as long as they do not change the shape and the repairs are made with fibreglass and fairing resins. Pins and gudgeons may be replaced with ones from the same manufacturer in the same holes on the rudder or transom without re-measurement and re-certification.

(d) INSTALLATION

- (i) The **rudder** shall be installed in compliance with official Plan D.

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

The following are permitted without re-**measurement** or approval of the **Certification Authority**. Unless otherwise stated, items mentioned in this rule may be obtained from any manufacturer or supplier

(a) MODIFICATIONS

- (i) No alterations or modifications to the **spar** extrusions or castings are permitted except to facilitate the attachment of **rigging** and fittings as specified in these rules.

- (ii) Unused fittings may be removed from the **mast** and **boom spars**, and tape or fasteners, may be used to cover holes and around fittings.
- (iii) **Spreader** through-bar retrofit kits may be installed to cure wear in the through-bar or **spar** through-holes.
- (iv) **Mast** extrusions may be through-bolted to the cast **mast** base.
- (v) The **outhaul** cleat may be re-positioned on the underside of the **boom**.

(b) MAINTENANCE

- (i) Routine maintenance such as lubrication, cleaning, repainting and polishing is permitted.
- (ii) Sheaves and the pins on which they turn may be replaced by ones of similar size. Sheaves with bushings or ball bearings are permitted

(c) REPAIR

- (i) Fittings may be replaced as needed with similar fittings and limit marks may be replaced in exactly the same location without re-measurement and re-certification.

C.9.2 FITTINGS

- (a) Not more than one **spinnaker pole** attachment fitting shall be fixed to the forward surface of the **mast**.

C.9.3 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, and the race committee has approved the substitution.
- (b) The placement of the **spinnaker pole** attachment fitting on the **mast** shall be established by the **mast** manufacturer and shall not be changed.

C.9.4 MAST

The **mast spar** and castings shall be supplied by a licensed manufacturer.

(a) DIMENSIONS

Item	Minimum	Maximum
Mast datum point (MP1) to intersection of the stemline and the sheerline (MP2) - See Plan "A"	2615mm	2635mm
Upper limit mark above the lower limit mark		7955mm
Limit mark width	20mm	
Spreader Length	750mm	790mm

(b) LIMITATIONS

- (i) Only one **mast** step plate (original flat or raised forward) shall be used during a regatta and shall be used in its designed configuration.
- (ii) The **mast** shall be permanently fixed to the cabin top using two pins in the **mast** step plate as diagrammed in Plan A.
- (iii) No slots are permitted in either the **mast** or deck mounted **mast** base plates. The **mast** base plates shall have circular holes for the 2

mounting pins, and these holes shall be no larger than the mounting pins' circumference.

- (iv) 2 mounting pins shall be used to secure the **mast** base plate to the deck mounted base plate, in such a manner as to ensure there is no discernible movement of the **mast** once mounted.
- (v) **Spreader** sweep angle shall not be modified by alteration of standard fittings.

C.9.5 BOOM

The **boom spar** and castings shall be supplied by a licensed manufacturer.

(a) DIMENSIONS

Item	Minimum	Maximum
Boom outer limit mark width	20mm	
Boom outer limit mark (mast to limit mark) measured with boom spar perpendicular to the mast spar		2745mm

(b) LIMITATIONS

- (i) The main **boom** may be fitted with attachment points for only an adjustable **outhaul**, topping lift, one mainsheet block, vang or kicking strap and reefing equipment.
- (ii) The main **boom** shall not be tapered or permanently bent.

C.9.6 SPINNAKER POLE

(a) DIMENSIONS

Item	Minimum	Maximum
Outside extrusion diameter	50mm	
Length between spinnaker pole bearing surfaces		2670mm

(b) LIMITATIONS

- (i) The **spinnaker pole** shall consist of a round, non-tapered, aluminium extrusion.
- (ii) The **spinnaker pole** must be rigged with working bridles, attached to the ends of the pole, for both the topping lift and foreguy. When the topping lift and foreguy are in use they must be attached to the bridles, not directly to the pole
- (iii) The **spinnaker pole** may be rigged with trip line(s) to the required pole ends with no mechanical advantage over factory supplied fittings.
- (iv) The **spinnaker pole** shall not be stowed on the **boom** when racing.

C.9.7 STANDING RIGGING

(a) DIMENSIONS

Item	Minimum	Maximum
Diameter of forestay and shrouds	4mm	
Diameter of upper backstay	3mm	
Diameter of lower backstay (wire)	3mm	

Item	Minimum	Maximum
Diameter of lower backstay adjuster (rope)	5mm	

(b) OPTIONAL

- (i) **Rigging** links, **rigging** screws and turnbuckles of various types are optional and may be used to adjust the length of the **rigging**. **Forestay** and **backstay** turnbuckles are not required.
- (ii) Locking devices of optional design may be used to facilitate **rigging** adjustment and locking.
- (iii) The upper **backstay** may be attached to the two lower **backstays** using rope of any diameter, or a ring or block.
- (iv) The lower **backstays** may be attached to the chainplates using rope of any diameter, shackles, or hooks, or any combination of them.

(c) LIMITATIONS

- (i) **Rigging** links, **rigging** screws (turnbuckles) and the rope, if any, connecting the upper **backstay** to the lower **backstays**, or the lower **backstays** to the chainplates, shall not be adjusted while racing.
- (ii) The **standing rigging** shall only consist of one **forestay**, one **backstay** with 2 lower **backstays**, two upper and two lower **shrouds**.
- (iii) The **standing rigging** shall only be of stainless or galvanized, multi-strand wire. Each strand of wire shall be of the same diameter and round in cross section.

C.9.8 RUNNING RIGGING

(a) FOR USE WHILE RACING - MANDATORY

- (i) The **mainsail sheet** shall be led between blocks attached to the boom and blocks and a cleat attached to the traveller car and/or a stationary block/cleat attached to a pedestal attached to the center of the traveller bar, with purchase of not more than 4:1. Configuration is optional.
- (ii) The **mainsail sheet** traveller control shall have no more than 2:1 purchase. Locations of turning blocks and cleats are optional.
- (iii) The **mainsail outhaul** shall be internal in the **boom spar**.
- (iv) The kicking strap (vang), which may include blocks, line, shackles, and cleats in any configuration, shall be led from a fitting on the **mast spar** to a fitting on the **boom spar**, and shall not exceed purchase of 8:1. It may also lead to a cleat, or cleats, on the deck or the sea hood.
- (v) The **mainsail** Cunningham control shall be led from a cringle on the **luff** of the **mainsail** to a fitting below it on the **mast spar**, with a maximum purchase of 6:1. It may also lead to a cleat, or cleats, on the **mast**, deck or sea hood.
- (vi) The **mainsail halyard** shall enter the sheave at the top of the **mast** and run down through an exit slot or exit block above the deck, but below the gooseneck, to optional termination. Purchase shall be 1:1.

- (vii) The **jib halyard** shall enter the **mast** through the jib crane below the **forestay** fixing point and run down through an exit slot or exit block above the deck, but below the gooseneck, to optional termination. Purchase shall be 1:1.
- (viii) The **spinnaker halyard** shall enter the **mast** through the jib crane above the **forestay** fixing point and run down through an exit slot or exit block above the deck, but below the gooseneck, to optional termination. Purchase shall be 1:1.
- (ix) The **jib sheets** shall be led to turning blocks on the **jib** cars. Purchase shall be 1:1 or 2:1.
- (x) The **spinnaker sheet** and **spinnaker guy** shall be led first to turning blocks attached to the deck, then through turning blocks in optional locations. Purchase shall be 1:1.
- (xi) The **spinnaker pole** topping lift shall enter the **mast** through a block that has been located by the licensed builder on the front of the **mast** between the jib crane and the **spreaders**, then exit the **mast** above the deck and below the gooseneck to further turning blocks and cleats as desired. Purchase shall be 1:1.
- (xii) The **backstay** adjuster shall run between the bridle block on the **backstays** through fairleads on the deck inside of the transom and through any arrangement of turning blocks and cleats as desired. Purchase shall be a maximum of 2:1.

(b) FOR USE WHILE RACING – OPTIONAL

- (i) If a **jib** Cunningham is used it may be led and cleated as desired.
- (ii) Reefing lines systems with layout and purchase optional.
- (iii) **Spinnaker pole** down-haul at 1:1 purchase.
- (iv) Spinnaker **sheet** barber haulers (twings) of synthetic rope, one on the port side and one on starboard, each consisting of fairleads or blocks and one cleat. Configuration is optional. The Barber haulers may be attached to the **spinnaker sheet/guy** by a block, hook or ring.
- (v) To double the purchase of the **sheet** of the jib, the **sheet** may be led through the jib **clew** cringle, or blocks attached to the **clew** cringle, and back to the base of the turning block on the jib car.
- (vi) A topping lift for the main **boom** at 1:1 purchase.

(c) LIMITATIONS

- (i) One end of the **mainsheet** shall be fixed to either the traveller block, **boom** block or swivel block. The other end shall be adjusted through a single cleat. A 2-speed purchase system for the **mainsheet** shall not be used.
- (ii) **Halyard** locks aloft are not allowed for any **halyard**

C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

The following is permitted:

(a) MODIFICATIONS

- (i) Draft stripes (camber stripes) may be added.
- (ii) Cringles for the attachment of Cunningham devices may be added to **mainsails** and/or jibs.

(b) MAINTENANCE

- (i) Routine maintenance such as cleaning and the removal and replacement of battens in **batten pockets**.

(c) REPAIR

- (i) Repair of damage such as **sail** tape patches over tears may be done.

C.10.2 LIMITATIONS

- (a) Not more than one **mainsail**, one **jib** and one **spinnaker** shall be carried aboard. This class rule may be amended by the sailing instructions.
- (b) Not more than one **mainsail**, one **jib** and one **spinnaker** shall be used during an event except when a **sail** has been lost or damaged beyond repair. This class rule may be amended in the sailing instructions.

C.10.3 IDENTIFICATION

- (a) National letters and distinguishing numbers may be replaced to match a new owner's requirements if the sails are sold.
- (b) Class insignia, national letters and distinguishing numbers shall be placed on the **mainsail** and **spinnaker** in accordance with Appendix G of the *Racing Rules of Sailing*. Unless otherwise required for handicap racing the **sail** number shall be the **hull** number.

C.10.4 MAINSAIL

(a) LIMITATIONS

- (i) The **sail** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** while afloat.
- (ii) The **luff** bolt rope shall be in the **spar** grooves or tracks.
- (iii) A bolt rope on the **foot** of the **mainsail** is optional.
- (iv) The **tack** of the **mainsail** may float or be fixed.
- (v) The **clew** shall be attached to the **outhaul** and the **boom**.

C.10.5 JIB

(a) LIMITATIONS

- (i) The **sail** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** while afloat.
- (ii) The **tack** of the **jib** is to be fixed to the stem fitting.
- (iii) The **clew** shall be attached to the **jib sheets**.

C.10.6 SPINNAKER

(a) LIMITATIONS

- (i) The **spinnaker** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** while afloat.
- (ii) The **spinnaker** may be stowed in and launched from the companionway from a bag of optional design.

Section D - Hull

D.1 PARTS

D.1.1 MANDATORY

- (a) **Hull**/deck shell.
- (b) Bulkheads.
- (c) Toe rails.
- (d) Bench boards or moulded inserts.
- (e) Floor board.
- (f) Interior mouldings.
- (g) Vertical companionway hatch board.
- (h) **Keel** stub (sump).
- (i) V-Berth.
- (j) Forward buoyancy tank with fitted V shaped hatch – either one or two pieces.
- (k) Buoyancy tank under V-Berth fitted with inspection port(s).
- (l) Buoyancy tank under cockpit fitted with inspection port at forward end in cabin, and a second inspection port forward of the stern toe rail.
- (m) **Mast** compression tube.
- (n) Hand rails.

D.2 GENERAL

D.2.1 RULES

The **hull** shall comply with the current **class rules** unless stated otherwise

D.2.2 MODIFICATIONS MAINTENANCE AND REPAIR

The following will require re-measurement and re-**certification** and may be done by anyone, unless otherwise noted.

(a) MODIFICATIONS

- (i) Interiors may be modified or rebuilt to conform to the interior layout shown in SECTION H.1, Plan F. Such modifications shall be executed in fibreglass and/or plywood in a manner as similar as possible in weight and dimensions to what is provided in new work from licensed builders. Such work shall not change the dry weight of the **boat** by more than 5kg. Bunk boards shall be plywood, or fibreglass, between 9mm and 13mm thick. Plywood replacements for the V-berth and cabin soles shall be between 9mm and 13mm thick. Fibreglass may also be used for the V-berth and with balsa core for the cabin sole to builder specifications.
- (ii) Holes not bigger than necessary for the installation of fittings and passage of lines (control lines may not pass through the deck) may be made in the deck and interior **hull** liner. These holes may be resin encapsulated to protect the core from moisture and crush.
- (iii) The **keel** stub may be faired to adjust **keel** position, but not in such a way as to compromise structure or to effect a change in weight distribution.
- (iv) Buoyancy compartments are sections of the boat below deck that have been sealed and use water resistant, sealed hatches or

inspection ports for access. These compartments have been incorporated by the builders in newer models, and may also be copied by others in remodelling older boats. Such non-builder versions shall be very similar to those supplied by licensed builders. Hatches or inspection ports to these compartments must be sealed while *racing*.

- (v) If the **shroud** chainplates attached to the aft side of the main bulkhead are not symmetrical about the longitudinal centerplane, either one (one only) may be moved laterally on the main bulkhead so that they become symmetrical about the longitudinal centerplane.
- (vi) Oversized backer plates, up to 60,000 square mm, may be added to the forward side of the main bulkhead. Up to 5 additional bolts through the bulkhead and the backer plate may be added in order to better spread the load to the bulkhead.

(b) REPAIRS

- (i) All bulkheads and structural members shall only be repaired or replaced with materials as identical as possible to original.
- (ii) Repairs of major holes from collisions or other impacts require permission and supervision of a class measurer and documentation of the process and materials used. Such supervision does not have to be on site. It may be done by photos and written documentation that is sent to the measurer. The primary qualification on this requirement is penetration of the repair into the core material. This would also include replacement of wet core. This does not include the filling of holes left by removal of fittings or equipment.

D.2.2 LIMITATIONS

- (a) Removal of gelcoat above or below the **waterline** for purposes of fairing the **hull** is not permitted. However, gelcoat may be abraded only as much as necessary to allow adhesion for paint or coatings. Such paint or coatings may then be faired.
- (b) No modifications shall be made if it changes the distribution of weight in the **boat**.
- (c) The exterior of the joint between the **hull** and the transom shall have no less than a 2mm radius.

D.2.3 DEFINITIONS

- (a) **HULL DATUM POINT** is where the transom or its extension meets the bottom of the **hull** shell or its extension on the **hull** centerplane.

D.2.4 IDENTIFICATION

- (a) The **hull** identification number shall be assigned by J Boats, Inc.
- (b) The hull identification number shall be moulded into, or permanently affixed to, the transom.

D.2.6 BUILDERS

- (a) The **hull** shall be built by a builder licensed by J Boats, Inc.
- (b) All moulds shall be approved by J Boats, Inc.
- (c) The **ICA** may assist with approval of the moulds.

(d) No moulds shall be modified after approval by J Boats, Inc. without the written approval of J Boats, Inc.

D.3 HULL/DECK SHELL

D.3.1 MATERIALS

The **hull**/deck shell shall be built from fibreglass reinforced resin over balsa core to specifications and layup schedules supplied by J Boats, Inc. to its licensed builders.

D.3.2 CONSTRUCTION

Construction of the **hull**/deck shell shall be by hand layup in the approved moulds to dimensions, specifications and plans as supplied by J Boats, Inc.

D.4 BULKHEADS

D.4.1 MATERIALS

Bulkheads shall be constructed of marine grade plywood, or fibreglass similar to that used by the licensed builders.

D.4.2 CONSTRUCTION

Construction of bulkheads shall be to designs supplied by J Boats. Bulkheads shall be tabbed to the **hull** shell according to the designs and layup schedules supplied by J Boats, Inc. to its licensed builders.

D.5 ASSEMBLED HULL

D.5.1 FITTINGS

(a) MANDATORY

The following fittings shall be positioned in accordance with the builder's specifications as shown in Section H.1 Plan E:

- (i) One stemhead fitting.
- (ii) Two bow chocks.
- (iii) One bow cleat.
- (iv) Four chainplates.
- (v) Two **jib** tracks.
- (vi) Two primary winches.
- (vii) One mainsheet track with traveller bar.
- (viii) Two stern cleats.
- (ix) Two upper and lower rudder gudgeons.
- (x) One vertical companionway hatch board.
- (xi) One **mast** compression tube.
- (xii) Two handrails (wood/stainless) permanently fixed to the cabin top on equal sides of the sea hood.
- (xiii) At least seven toe rails, three on each side of the deck at the deck edge and one across the deck at the deck transom edge, and optional ones along the centerline of the foredeck and on the seats for foot braces.

D.6 WEIGHTS

D.6.1 BUILDER WEIGHT (ASSEMBLED HULL)

- (a) The weight of the **hull** including **keel**, rudder and tiller with all of the hull's specified mouldings, structures and fixed components shall not be less than 770 kg, nor more than 815 kg.
- (b) The Licensed Builder shall weigh the **keel** and **hull** as described in (a) above and record the weight in the appropriate place on **Measurement** Form Part B.
- (c) **Corrector weights**, if required, shall be lead ingots installed in the same way as described in C.6.2, and permanently attached with bolts, permanent adhesive, or fibreglass and resin. **Corrector weights** shall not be removed or altered.

D.7 KEEL STUB

D.7.1 DIMENSIONS

- (a) The distance between the **hull datum point** and the intersection of the trailing edge of the **keel** stub and the **hull** shell, each extended as necessary, shall be no more than 2908.3mm nor less than 2883mm measured on the center plane along the **hull** contour.
- (b) Between MPE and the **keel/hull** radius, neither the trailing edge of the **keel** stub nor the trailing edge of the **keel** shall be less than 8mm wide.

Section E - Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) **Keel**
- (b) Rudder

E.2 GENERAL

E.2.1 RULES

Hull appendages shall comply with these class rules.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

The following will require re-measurement and re-**certification** and may be done by anyone, unless otherwise noted.

(a) MODIFICATIONS

- (i) **Hull appendages** may be faired and shaped by adding or removing material as long as it continues to comply with the dimensions and offsets in SECTION H, Plan C for **keels** and Plan D for **rudders**.
- (ii) Fairing materials used on **hull appendages** may not exceed the density of standard fibreglass construction. No metals or heavy fillers may be added to the fairing resin.

E.2.3 MANUFACTURERS

The **hull appendages** shall be made by builders licensed by J Boats, Inc.

E.3 KEEL

E.3.1 MATERIALS

- (a) The **keel** shall be made of lead or lead alloy to the specifications supplied to licensed builders by J Boats, Inc.
- (b) The lead **keel** shall be covered with fibreglass reinforced resin and/or filler resin to the dimensions specified in these class rules including SECTION H, Plan C. It may also be gel coated or painted.

E.3.2 CONSTRUCTION

- (a) The **keel** shall be manufactured in a mould approved by J Boats, Inc.. World Sailing and the **ICA** may assist in the approval of moulds.
- (b) The **keel** shall be attached to the **hull** with at least 5 stainless steel **keel** bolts to J Boats' specifications.
- (c) The aft **keel** bolt shall have a stainless-steel eye, or the two aft **keel** bolts shall have a stainless-steel bar with a stainless-steel eye fixed between them, for lifting the boat.

E.3.3 DIMENSIONS

- (a) The **keel** and its placement shall comply with all of the dimensions of SECTION H.2 Measurement Plans.
- (b) The distance from the **hull datum point** to the trailing edge of the **keel** 216mm below the **hull** shell, designated as MPA in the measurement plan, shall be not more than 2908.3mm, nor less than 2883mm.

- (c) The distance from the **hull datum point** to the trailing edge of the **keel** 482.6mm below MPA, designated as MPC in the measurement plan, shall be not more than 3029mm, nor less than 3003mm.
- (d) The surface of the **keel** from the **hull** shell down, including the **keel** stub, shall be fair in all planes.
- (e) The leading and trailing edges of the **keel** shall be within 5mm of a straight line between sections I and IV (of H.1 Plan C **Keel** Plan).
- (f) The trailing edge of the **keel** shall not be less than 6mm wide below MPE, and not less than 8mm wide above MPE to the **hull** intersection.
- (g) The maximum depth of the **keel** as measured from MPA to the bottom of the **keel** shall not be more than 720.7mm nor less than 708mm.
- (h) The distance from MPA to MPB shall not be more than 974.7mm nor less than 955.7mm, and the thickness shall not be less than 95.2mm.
- (i) The distance from MPC to MPD shall not be more than 616mm nor less than 590.6mm, and the thickness shall not be less than 73mm.
- (j) The thickness between MPE and MPF shall not be less than 108 mm. MPE is 203.5 mm above MPA and MPF is 253 mm above MPB.
- (k) The leading and trailing edge between Sections 1 and 4, shall be straight within a tolerance of + or - 3mm. Between sections 1 and 4, the surface of the **keel** shall be fair in every plane.
- (l) The distance from the **hull datum point** to MPA when added to the distance between MPA and MPB shall not exceed 3871mm.
- (m) The distance from the **hull datum point** to MPC when added to the distance between MPC and MPD shall not exceed 3633mm.

E.3.4 WEIGHTS

- (a) The **keel** weight shall be not more than 330kg or less than 315kg before it is attached to the **keel** stub and faired to the boat.
- (b) The actual **keel** weight shall be recorded in section B of the measurement form by the licensed builder.

E.4 RUDDER BLADE AND TILLER

E.4.1 MATERIALS

- (a) The **rudder** blade shall be made of fibreglass reinforced resin over a balsa core.
- (b) The tiller shall be made of wood. The wood may be laminated.

E.4.2 CONSTRUCTION

- (a) The rudder blade shall be made by a builder licensed by J Boats, Inc. to comply with **class rules** including Section H, plan D.
- (b) The tiller builder is optional.

E.4.3 FITTINGS

(a) MANDATORY

- (i) Gudgeons and pintles and/or pins which may be replaced with similar or heavier fittings from any manufacturer as long as those fittings do not project the **rudder** any more than 50mm from the transom to the leading edge of the **rudder**.

E.4.4 WEIGHTS

- (a) The weight of the **rudder**, with attached pintles or gudgeons, shall not be less than 10.88kg.
- (b) **Corrector weights** may be added to the aft edge of the **rudder** head, above the **waterline**. The **corrector weights** shall be exposed to view and strapped to the rudder head with fibreglass and resin.

E.4.5 DIMENSIONS

- (a) The **rudder** depth from the **hull** projection shall be between a maximum of 890mm and a minimum of 860mm.
- (b) The **rudder** thickness shall be a minimum of 39.4mm.
- (c) The **rudder** chord length (leading edge to trailing edge) shall be a maximum of 305mm and a minimum of 300mm.
- (d) The minimum trailing edge thickness of the **rudder** shall be 4mm.
- (e) The bottom corner radius at both the trailing and leading edges shall be a minimum of 40mm.

Section F - Rig

F.1 PARTS

F.1.1 MANDATORY

- (a) **Mast Spar**
- (b) **Boom Spar**
- (c) **Standing rigging**
- (d) **Running rigging**
- (e) **Spinnaker pole**

F.2 GENERAL

F.2.1 RULES

- (a) The **spars, rigging** and their fittings shall comply with the **class rules**.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Spars** shall not be altered in any way except as permitted by these **class rules**.
- (b) Sleeves, plates, and/or fasteners may be used to repair **spars** and/or to cover holes from missing fittings.

F.3 MAST

F.3.1 MATERIALS & CONSTRUCTION

- (a) The **mast spar** extrusion shall be tapered aluminum, and include an integral fixed **sail** groove.

F.3.2 DEFINITIONS

- (a) The **Mast Datum Point 1 (MP1)** shall be the point the downward extension of the forward face of the **mast** intersects with the deck, as indicated in Section H, Plan A.

F.3.3 FITTINGS

(a) MANDATORY

- (i) Top Plate.
- (ii) **Mast** head fitting (crane).
- (iii) One upper **mainsail halyard** sheave.
- (iv) Two female pass-throughs for upper **shroud** swage fittings.
- (v) **Forestay**/jib crane.
- (vi) One upper **spinnaker halyard** sheave.
- (vii) One upper **jib halyard** sheave.
- (viii) One **spinnaker pole** lift exit block
- (ix) **Spreader** compression tube and brackets or **spreader** bar.
- (x) Two **spreaders**.
- (xi) Two female pass-throughs for lower **shroud** swage fittings.
- (xii) A maximum of one **spinnaker pole** fitting.
- (xiii) Gooseneck.
- (xiv) Kicking strap (vang) **attachment**.
- (xv) Cast heel fitting or J Boats, Inc. approved heel design, with integral, or attached, bottom **mainsail halyard, jib halyard, spinnaker halyard, and spinnaker pole lift** sheaves.
- (xvi) Bottom **mast** plate (original or raised front).

(b) OPTIONAL

- (i) One mechanical wind indicator
- (ii) Compass bracket(s)
- (iii) Attachment and control fittings for **mainsail** Cunningham
- (iv) Steaming lights and anchor lights
- (v) Tape for chafe protection, lashings, shackles and any attachment devices

F.3.4 DIMENSIONS

- (a) All **mast spar** dimensions shall comply with the drawings and specifications supplied to licensed builders by J Boats, Inc.

F.3.5 LIMITATIONS

- (a) The **spinnaker pole** fitting projection from the mast shall not exceed 55mm.
- (b) No **halyards** or lifts may be cleated on the side of the **mast spar**.
- (c) No bottom ends of **halyards** or lifts shall exit the **mast** above the gooseneck fitting.
- (d) The bottom turning blocks for **halyards** and lifts shall be inside, or attached to, the **mast** heel design approved by J Boats, Inc..

F.4 BOOM

F.4.1 MATERIALS & CONSTRUCTION

- (a) The **boom spar** extrusion shall include a fixed **sail** groove, integral with the **spar**.
- (b) The **boom spar** shall be made of aluminium by a licensed builder to the plans and specifications supplied by J Boats, Inc.

F.4.2 FITTINGS

(a) MANDATORY

- (i) Cast aluminium gooseneck **attachment** fitting, or cast aluminum gooseneck with plastic insert **attachment** fitting.
- (ii) Kicking strap (**boom** vang) fitting.

(b) OPTIONAL

- (i) Fittings to facilitate reefing.
- (ii) Older gooseneck fittings may have the parts for a fixed **tack** and reefing horns removed.
- (iii) Attachment for a **boom** topping lift to the **boom** end fitting.

F.4.3 LIMITATIONS

- (a) The main **boom** may be fitted with attachment points for only an adjustable **outhaul**, topping lift, one **mainsail** block, kicking strap (**boom** vang), and reefing equipment (the location of which is optional).
- (b) The main **boom** shall not be tapered or permanently bent.

F.5 SPINNAKER POLE

F.5.1 BUILDER

- (a) Builder is optional.

F.5.2 MATERIALS

- (a) The **spar** shall be of aluminum.
- (b) **Spinnaker pole** ends material is optional.

F.5.3 FITTINGS

- (a) **Spinnaker pole** end fittings (2) are required.

F.5.4 DIMENSIONS

- (a) **Spinnaker pole** length, between the end fitting bearing surfaces shall be no more than 2670mm.
- (b) **Spinnaker pole** outside diameter shall not be less than 50mm.

F.6 STANDING RIGGING

F.6.1 MATERIALS

- (a) The **shrouds, backstay** and **forestay** shall be of stainless steel or galvanized multi-strand wire.
- (b) The **backstay** bridle shall be of stainless steel or galvanized multi-strand wire.

F.6.2 CONSTRUCTION

- (a) Builder/supplier is optional. Wire and strands must be round. Dyform or equivalent products are prohibited.
- (b) MANDATORY
 - (i) A **forestay** of minimum 4.0mm.
 - (ii) Upper **shrouds** (2) of minimum 4.0mm.
 - (iii) Lower **shrouds** (2) of minimum 4.0mm .
 - (iv) **Upper Backstay** of minimum 3.0mm.
 - (v) **Lower Backstay** (2) of minimum 3.0mm.

F.6.3 FITTINGS

- (a) MANDATORY
 - (i) **Shroud rigging** screws (turnbuckles) (4)
- (b) OPTIONAL
 - (i) **Forestay rigging** links and/or **rigging** screw (turnbuckle).
 - (ii) **Backstay** bridle **rigging** screws (turnbuckles) or rope lashings.
 - (iii) **Backstay** bridle quick disconnect hooks, shackles, or rope lashings.
 - (iv) **Shroud rigging** links

F.6.4 DIMENSIONS (see C.9.7(a))

- (a) **Standing rigging** shall comply with class rules.

F.7 RUNNING RIGGING

F.7.1 PARTS/MATERIALS – Builder/supplier is optional

- (a) MANDATORY
 - (i) **Mainsail halyard** – 7x19 wire not less than 3mm and/or synthetic rope not less than 6mm.
 - (ii) **Mainsail sheet** – synthetic rope not less than 8mm with purchase not to exceed 4:1 power.
 - (iii) Kicking strap (vang) – synthetic rope with purchase not to exceed 8:1 power, with an optional strop of wire or synthetic rope not more than 152mm in length, to attach the block to the **mast** bail.
 - (iv) **Jib halyard** – 7x19 wire not less than 3mm and/or synthetic rope not less than 6mm.
 - (v) **Jib sheets** – synthetic rope not less than 6mm.

- (vi) Spinnaker **halyard** – synthetic rope not less than 6mm.
 - (vii) Spinnaker **sheet** and **spinnaker guy** – synthetic rope not less than 8mm.
 - (viii) **Spinnaker pole** lift or up-haul – synthetic rope not less than 6mm.
 - (ix) **Mainsail** traveller control – synthetic rope.
 - (x) **Backstay** adjuster – synthetic rope with purchase not greater than 2:1 power.
 - (xi) **Mainsail** Cunningham – wire and/or synthetic rope with purchase not greater than 6:1.
 - (xii) **Mainsail outhaul** – wire and/or synthetic rope.
 - (xiii) Spinnaker Barber haulers (twings) – synthetic rope
- (b) OPTIONAL
- (i) **Spinnaker pole** downhaul – synthetic rope not less than 6mm.
 - (ii) **Jib** Cunningham line – wire and/or synthetic rope with purchase not greater than 4:1.
 - (iii) Main **Boom** topping lift – wire or synthetic rope.
 - (iv) Reefing lines – synthetic rope.
 - (v) All lines may be stripped or tapered, as long as minimum diameters are respected throughout.

Section G - Sails

G.1 PARTS

G.1.1 MANDATORY

- (a) **Mainsail**
- (b) Jib
- (c) Spinnaker

G.2 GENERAL

G.2.1 CONSTRUCTION

- (a) The **body of the sail** shall be **single-ply sail**. Elastic material is only allowed in **batten pockets**.
- (b) The **mainsail** and jib may each be fitted with **windows** of any material. If fitted, no dimension of any **window** shall be more than 1500mm in any direction and any edge of any **window** shall be not less than 80mm from the nearest **sail edge**.
- (c) **Sails** may have **primary reinforcement** of any flexible material or coating at a corner, at holes and at reefing points, and **secondary reinforcement** of additional layers of **ply**. Such **primary** and **secondary reinforcements** shall be capable of being folded in any direction without damaging the fibres.

G.2.2 RULES

- (a) The sails shall be made to measure, and shall be measured, in accordance with the current World Sailing Guide to Certification Control – Section G, except where varied herein.
- (b) **Sails** shall comply with the **class rules** in force at the time of manufacture.

G.2.3 MEASUREMENT

- (a) J/22 **sail measurement control** is event driven. The **sail measurement mark** shall be event specific.
- (b) A class measurer shall certify sails with a **sail measurement mark** (a stamp and/or signature) near the **tack (spinnakers near the clew)** adjacent to the royalty label.
- (c) Once a **sail** has been **certified** at an event, it need not be **remeasured** at another event unless it has been altered. Additional **sail measurement marks** shall be added to the **sail** per section (b) above.

G.2.4 SAILMAKER

- (a) No licence is required.

G.2.5 IJ22CA SAIL ROYALTY LABEL

- (a) Each **sail** shall have a numbered IJ22CA royalty label stitched near the **tack point (spinnakers near the clew)**.
- (b) IJ22CA royalty labels are available from the class office.
- (c) IJ22CA royalty labels shall not be transferred from one **sail** to another.

G.3 MAINSAIL

G.3.1 IDENTIFICATION

- (a) The class insignia shall be blue and fit within a 305mm wide and 610 mm high rectangle in conformance with the diagram in SECTION H, Plan B and be located in accordance with the RRS.

G.3.2 MATERIALS

- (a) The **ply** fibres shall be a single **woven ply** of polyester of at least 198 grams per square meter, except for a **foot** shelf not exceeding 200mm in width. The **ply** material shall be of traditionally woven polyester fibres so that when the material is torn it shall be possible to separate the fibres without leaving evidence of film.
- (b) Battens shall be made of fibreglass.
- (c) The headboard may be made of any material.

G.3.3 CONSTRUCTION

- (a) The construction shall be: **soft sail, single ply.**
- (b) Reef points are optional.
- (c) The following are permitted: Stitching, glues, tapes, **luff** bolt rope (required), corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches, batten pocket** elastic, **batten pocket** end caps, **leech** line with cleat, **windows** consistent with G.2.1(b), tell tales, **sail** shape indicator stripes and items as permitted or prescribed by other applicable *rules*.
- (d) The **foot** of the **mainsail** may be loose or have a boltrope.
- (e) The **luff** of the **mainsail** shall be attached to the **mast** with a boltrope.

G.3.4 DIMENSIONS

Item	Minimum	Maximum
Leech length		8415 mm
Half width		1910 mm
Three-quarter width		1155 mm
Top width		145 mm
Headboard		115 mm
Mass of ply of the body of the sail	198 g/m ²	
Head point to centerline of top batten pocket at the leech	1625 mm	
Clew point to centerline of bottom batten pocket at the leech	1625 mm	
Top batten length		585 mm
Intermediate batten length (a maximum of 2 are permitted)		915 mm
Bottom batten length		915 mm
Batten width		50 mm

G.4 NOT USED

G.5 JIB

G.5.1 MATERIALS

- (a) The **ply** fibres shall be a single **woven ply** of polyester of at least 186 grams per square meter. The **ply** material shall be of traditionally woven polyester

fibres so that when the material is torn it shall be possible to separate the fibres without leaving evidence of film.

(b) Battens shall be made of fibreglass.

G.5.2 CONSTRUCTION

(a) The construction shall be: **soft sail, single ply**.

(b) The following are permitted: 3 battens, a reef, stitching, glues, tapes, corner eyes, Cunningham eye or pulley, metal or cloth hanks, **leech** line with cleat, **windows** consistent with G.2.1(b), cringle or eye in the **foot** for a tacking line, tell tales, **sail** shape indicator stripes and items as permitted or prescribed by other applicable rules.

(c) The **sail** shall be attached to the **forestay** by hanks. If cloth hanks are fitted only metal or plastic press studs are permitted. There shall be only one stud for each hank.

(d) The **leech** may be supported by a maximum of three equally spaced battens.

G.5.3 DIMENSIONS

Item	Minimum	Maximum
Luff length	7075mm	7125mm
Luff Perpendicular	2575mm	2620mm
Head width		50mm
Length of leech	6200mm	6275mm
Weight of ply of the body of the sail	186g/m ²	
Hanks – distance between centerlines	450mm	
Hanks - width, if cloth		40mm
Inside length of top batten pocket		455mm
Inside length of middle and bottom batten pocket		700mm
Batten pocket inside width (not including insertion point)		60mm
Length of centerfold when leech is folded to luff		6750mm
One-quarter width		720mm
Half width		1392mm
Three-quarter width		2030mm

G.6 SPINNAKER

G.6.1 MATERIALS

(a) The **ply** fibres shall consist of woven nylon not less than 40 grams per meter squared.

(b) **Sail reinforcement** shall consist of nylon or woven polyester.

G.6.2 CONSTRUCTION

(a) The construction shall be: **soft sail, single ply sail**.

(b) The **body of the sail** shall consist of the same **woven ply** throughout.

(c) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales and items as permitted or prescribed by other applicable rules.

(d) The spinnaker shall be a trilateral **sail**, symmetrical about its vertical centerline.

G.6.3 MEASUREMENT AND DIMENSIONS

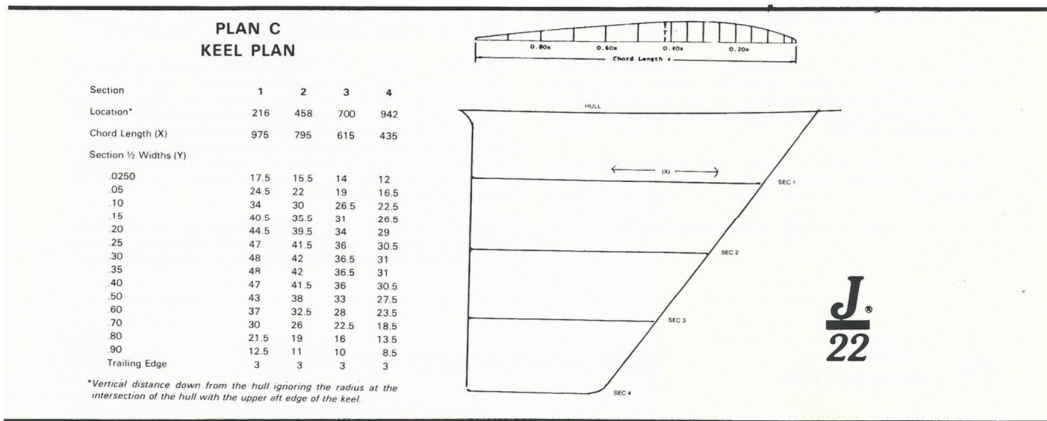
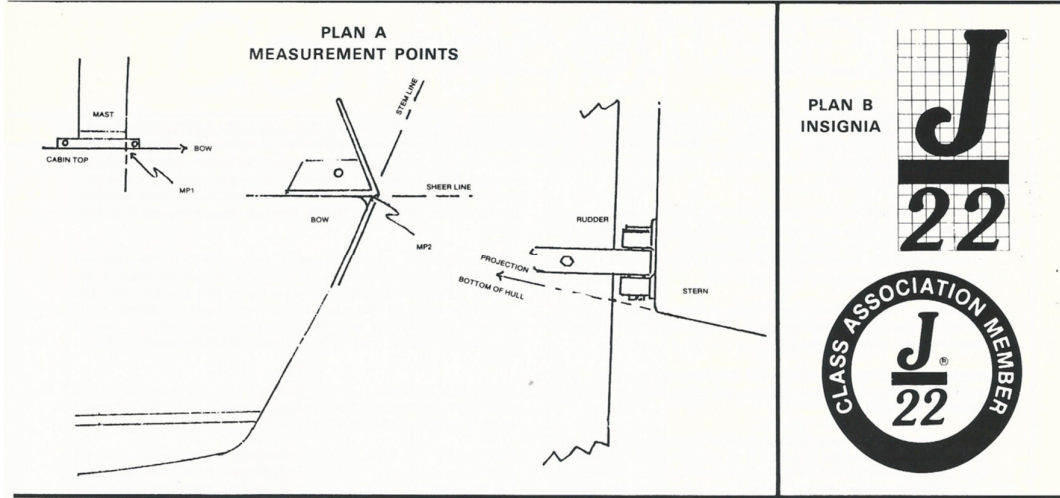
Item	Minimum	Maximum
Top of the head to the clew points	7450mm	7585mm
Length of vertical center fold		8700mm
Half width at any height		2465mm

- (a) The spinnaker shall be measured while folded in half about its vertical centerline with the **leeches** superimposed. Sufficient tension shall be applied to remove wrinkles and creases along the line of measurement.
- (b) With the **sail** laid out as required in G.6.3(a), at any point along the **leech**, the distance to the closest point on the center seam shall be less than the maximum permitted in the table above.

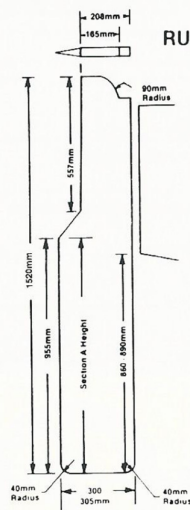
PART IV - APPENDICES

Section H - Plans

H.1 BUILDER'S PLANS



**PLAN D
RUDDER PLAN**



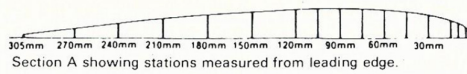
Section A Offsets in Millimeters

Offsets describe minimum half-widths at stations, which are located from the leading edge

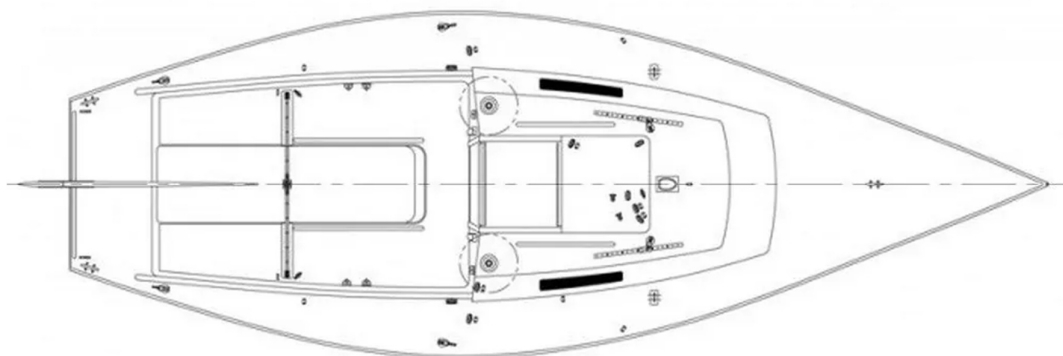
Station	Half Width
5mm	7.0
10mm	10.0
15mm	12.0
30mm	15.5
45mm	17.5
60mm	18.8
75mm	19.3
90mm	19.6
105mm	19.7
120mm	19.6
150mm	18.7
180mm	16.6
210mm	13.7
240mm	10.3
270mm	6.6
Trailing Edge (300:305mm)	2.0

The distance from the leading edge to the trailing edge shall not exceed 305mm

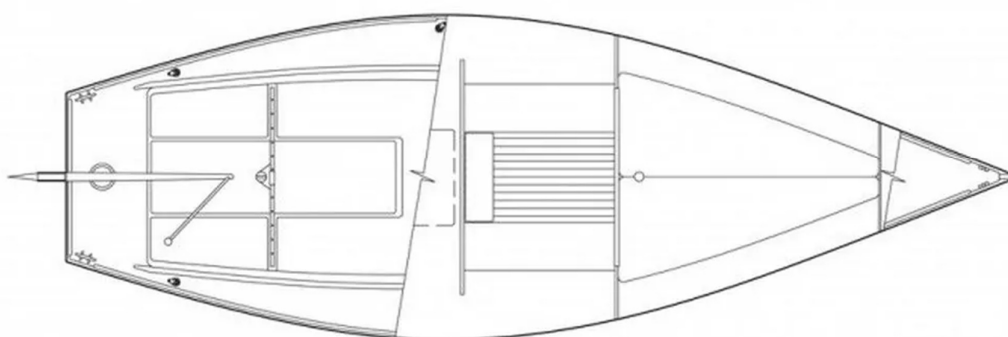
Section A is perpendicular to the leading edge



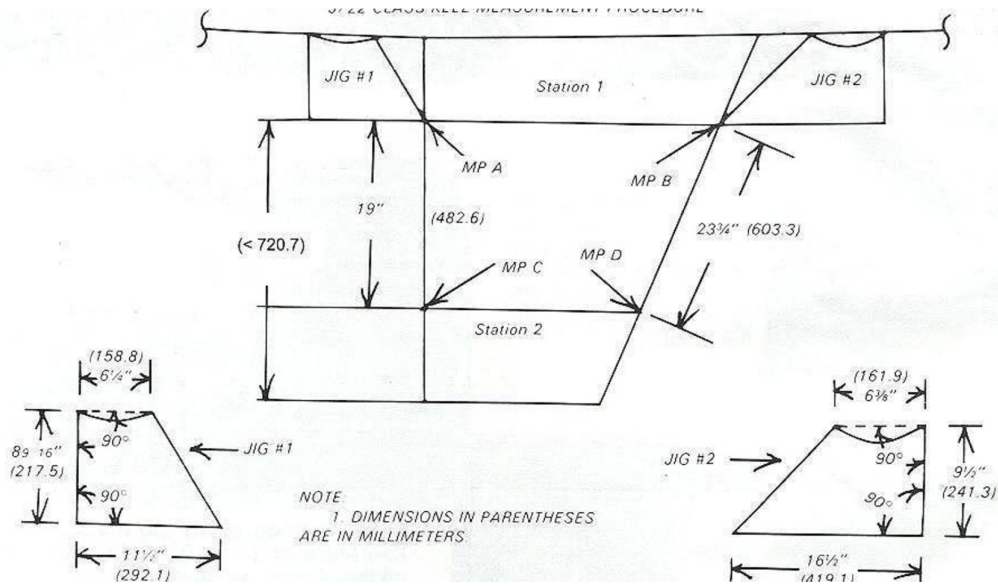
PLAN E – DECK LAYOUT



PLAN F – INTERIOR LAYOUT



H.2 MEASUREMENT PLANS



Section I - Event Rule Change Options

I.1 GENERAL GUIDANCE

These rules must be invoked individually by the sailing instructions per RRS 87. The default is that these rules do not apply. The notice of race shall state that “**Class rule** (XYZ) will be changed in the sailing instructions to I.(X) or (description of a special change)”. The same must be stated in the sailing instructions. The options described here in Section J are a part of these **class rules** and do not need **ICA** approval for their inclusion in an event. Any other changes to **class rules** (description of a special change) requires the approval of the ICA.

I.2 SPARE SPINNAKER

Class rule C.10.2 may be changed per RRS 87 to allow a **boat** to carry a spare class spinnaker on board while racing for a specific event subject to the following:

- (a) The spare spinnaker shall be so designated at measurement, and may be marked by a special **event limitation mark** by the event inspectors.
- (b) The spare spinnaker shall not be used while racing, but may be used only to get to and from the race area.

I.3 CREW LIMITATIONS

This changes class rule C.2.1 per RRS 87. There shall be no limit on total **crew** weight.

I.4 MAINSAIL AND JIB ONLY

The event shall be sailed only with two sails – a **mainsail** and a jib. A jib as described in **class rule** G.4 shall be the only **jib** permitted while racing.

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