

# INTERNATIONAL VAURIEN CLASS RULES

Authority: IYRU, 27 Broadwall, Waterloo LONDON SE1 9PL

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## 1. GENERAL

### 1.0 Scope

One-design Class

The VAURIEN is a one-design class designed by J.J. Herbulot.

### 1.1 Authorities

#### 1.1.1 INTERNATIONAL YACHT RACING UNION

Vaurien Class is recognised as an international class by the International Yacht Racing Union (IYRU), under its rules.

#### 1.1.2 INTERNATIONAL VAURIEN CLASS ASSOCIATION (IVCA)

The international administration of the class is undertaken by IVCA.

#### 1.1.3 NATIONAL AUTHORITIES

In countries where there is no national authority for yachting or the national authority does not wish to administer the class, its function as stated in these Rules shall be carried out by the IVCA or its delegated representatives National Vaurien Class Association (NVCA).

#### 1.1.4 No legal Responsibility

Neither the IYRU nor the IVCA accepts any legal responsibility in respect of these Rules and/or the plans or any claim arising therefrom.

## 2. ADMINISTRATIVE

### 2.0 CLASS RULES

The Class Rules are deemed to include the Measurement Form with the appended Diagrams and are to be read in conjunction with the Official Plans number 1,2,3 and 8. In the event of a discrepancy between these Rules and the Measurement Form or the Plans the Rules shall take precedence. In the event of a discrepancy between the Measurement Form and the Plans, the Measurement form shall take precedence.

### 2.1 Official language

The official language of the class is English and in the event of dispute over interpretation the English text shall govern.

### 2.2 BUILDER

#### 2.2.1 Construction

Building shall be undertaken only by yards approved by the International Class Association after consultation with the National Class Association and/or by amateurs. Amateur building shall only be undertaken under the authority of the International Vaurien Class Association (IVCA).

#### 2.2.2 Licence

A building licence will be issued to the builder by the Designer through the IVCA.

### 2.3 Fees

#### 2.3.1 Royalties

The builder of a Vaurien shall be responsible for paying the royalties to the Designer.

#### 2.3.2 Fees to the IYRU

The builder of a Vaurien shall be responsible for paying the 0.5% fee to the IYRU.

#### 2.3.3 Fees to NVCA

Building fees will be fixed by every NVCA for every boat sold in the country. The builder or supplier of the hull is responsible for this fee being paid to his NVCA.

### 2.4 Registration and Measurement Certificate

#### 2.4.1 Sail Numbers

The IVCA allocates sail numbers to National Vaurien Class Associations for distribution to builders. Numbers are consecutive internationally.

#### 2.4.2 Measurement Certificate

A valid Measurement Certificate shall accompany each boat.

#### 2.4.3 Procurement of Measurement Certificate and Registration

The measurement Certificate shall be obtained as follows:

- (i) The owner or builder shall have the boat measured by a measurer officially recognised by his national authority.
- (ii) A copy of the completed Measurement Form shall be issued to the owner of the boat.

- (iii) The owner shall send the completed Measurement Form to his national Authority, together with any registration fee that may be required. On receipt of this the national Authority may issue a Measurement Certificate to the owner. A measurement fee will be fixed by the national Authority in agreement with the measurer.

#### 2.4.4 Owner's Responsibility

It is the owner's responsibility to ensure that his boat complies with the class rules at all times and that replacements, alterations or repairs do not invalidate its Certificate. Replacements or alterations to the hull, centreboard and rudder, spars and sails shall be measured by an official measurer.

#### 2.4.5 Change of Ownership

Change of ownership invalidates the Certificate but shall not necessitate Remeasurement. The new owner shall apply to his national Authority for a new Certificate, returning the old Certificate together with any registration fee required and stating the necessary particulars. A Certificate shall then be issued to the owner.

#### 2.4.6 Power of Authorities

Notwithstanding anything contained in these Rules, the IYRU or national Authority shall have power to refuse to grant a Certificate to, or withdraw a Certificate from any boat.

### 2.5 Measurement

#### 2.5.1 Measurement procedures

Measurement shall conform to the Measurement Form and should follow the suggested procedure whenever possible.

#### 2.5.2 Official measurer

Only a measurer officially recognised by a national Authority shall measure a boat, its spars or sails and sign the declaration on the Measurement Form that it complies with these Rules. The Measurer shall report on the Measurement Form anything which he considers to be unusual or to depart from the intended nature of the boat, or to be against the general interest of the class and a Certificate may be refused even if the specific requirements of these Rules are satisfied.

#### 2.5.3 Interested Parties

A measurer shall not measure a boat, sails or spars owned or built by himself or in which he is an interested party or has a vested interest.

#### 2.5.4 Sail Measurement

New or substantially altered sails shall be measured by an official measurer who shall stamp and sign and date the sails near the tack.

#### 2.5.5 Templates

Templates used for official measurement shall be approved by IVCA and/or the relevant NVCA.

#### 2.5.6 Complying with Class Rules

All spars, centreboard, rudder and sails shall comply with the current rules: hulls may comply with the corresponding rules applying to them at the time the boat's original certificate was issued. Any alteration shall comply with the current rules <sup>2)</sup>

#### 2.5.7 Remeasurement

All boats shall be liable to remeasurement at the discretion of a national Authority or Race Committee.

2.6 IYRU Measurement Instructions

The IYRU Measurement Instructions shall apply unless other-wise stated.

2.7. Identification Marks

2.7.1 Hull Markings

The hull shall carry, either cut into or indelibly marked on the port side of the centreboard case, the sail number in figures not less than 25 mm high.

2.7.2. Sail Markings

The mainsail shall carry identification marking on both sides according to IYRU Rules, but contrarily to these the spinnaker may carry the markings on one side only without indication of national letter(s).

2.7.3 Marks

All emblems, marks and numbers shall be of a durable material securely attached or painted.

### 3. CONSTRUCTION AND MEASUREMENT RULES

#### 3.0 Dimensions

##### 3.0.1 Tolerances

Measurement tolerances are intended to allow for genuine building errors and shall not be deliberately used to alter the design. Where tolerances are not stated the following shall apply to dimensions of the hull and spars:

dimensions	tolerances
0 to 500 mm	±2%
501 to 2000 mm	±1,5%
above 2000 mm	± 1%

##### 3.0.2 Doubtful points

Since the boat is a one-design and it is unlikely that the Class Rules can cover in detail every possible eventuality, builders are strongly advised to clear up any doubtful points with IVCA and the NVCA before starting construction so as to avoid the possibility of boats being subsequently outclassed.

### 3.1 **Hull**

#### 3.1.1 Hull Materials <sup>2)</sup>

The hull shell, deck, sidedecks, bouyancy compartments, centreboard case, thwarts and side benches shall be constructed of:

any good quality wood and/or plywood,  
Glass Reinforced Plastics (GRP), composed of E-glass fibre for reinforcement and of Polyester or Polyvinyl resin as laminating agent,  
Composites combining GRP as defined above for skin and for core Polyvinyl chloride (PVC) closed-cell foam of nominal density not less than 65 kg/dm<sup>3</sup> or Polyurethane or balsa wood, or combination of these.

Such materials shall be durable an entirely suitable for marine use.

Special materials such as:

High modulus glass fibre, aramid and carbon fibre,  
Paper/aramid an aluminium honeycomb, are prohibited.

Epoxy resin is prohibited as laminating agent in GRP hulls; it is only permitted as glue and/or coating in wooden hulls <sup>2)</sup>

#### 3.1.2 External hull shape

The external shape of the hull shall comply with these Rules and the Plans.

Attention is drawn to the fact that sheerline and chine shall be continuous curves without inflexions between measurement sections. A ruler 680mm long sliding along the curves, shall never have two points of contact (i.e. shall touch at a point only) except in straight sections where continuous contact may occur. <sup>1)</sup>

The external hull includes:

- (a) bottom panels, keel, skeg and bilge keels,
- (b) side panels and rubbing strakes,
- (c) transom
- (d) foredeck, coamings and sidedecks.

#### 3.1.3 Internal details.

Internal details of the hull shall comply with these Rules in respect of:

- (a) centreboard case
- (b) thwarts and side benches
- (c) buoyancy apparatus.

Reinforcing pieces and/or stiffeners are permitted provided that preceding points (a), (b) and (c) as well as rule 3.1.2 are complied with.

The volume between the fore and side decks, the mastwart and the bottom may be arranges freely, provided that the top surface is not higher than the extension of the foredeck. <sup>1)</sup>

Any ties, ropes, wires ore similar devices transferring the thrust from the base of the mast to the hull shall not be adjustable <sup>2)</sup>

#### 3.1.4 Transom construction details

##### 3.1.4.1 Drainage Ports

The transom shall have one drainage port or two in which case they shall be equidistant from the transom centreline. They shall have a minimum total area of 1950 mm<sup>2</sup> and be either:

- (a) circular - as close as possible to the bottom panel
- (b) of any shape with no dimension exceeding 120 mm in any direction and not less than 15 mm from the outside of the bottom skin.

However, if the boat is fitted with self-bailer(s) the drainage port(s) shall have a minimum section of 760 mm<sup>2</sup>.

3.1.4.2 Recesses for scull

One or two recesses for a scull are permitted in the upper edge of the transom.

3.1.5 Bottom Construction Details

3.1.5.1 False and Double Bottoms

False and/or double bottoms are prohibited. Sandwich type construction not thicker than 15 mm shall not be considered double bottom.

3.1.5.2 Rounding Off

Rounding off of exposed and internal edges of the hull is permitted to a maximum radius of 10 mm or the angle can be cut with chamfer of 14 mm distance between edges. Angles between keel and skeg can be filled as shown in Plan n°3.

3.1.5.3 Bilge Keels

Bilge keels are optional : if existing, they shall be positioned between section 2 and 4 as shown in the Diagrams and shall be under the outer floor battens if any. Their sectional dimensions shall not be less than 35 mm width and 16 mm depth. Angles between bottom and bile keels can be filled to a maximum radius of 10 mm.

3.1.5.4 Fairing

External keel, skeg and bilge keels may be faired in accordance with the Plans. Fairing of keel at the junction with the stem (at water line level) is prohibited. Length of fairing of external keel, skeg and bilge keels shall not exceed 120 mm. <sup>3)</sup>

Width of the external keel at its intersection with the hull shell, minimum 52 mm, maximum 95 mm.

3.1.5.5 Skeg

The dimensions of the skeg shown on the plans are maximum dimensions: the skeg will be measured with a template and shall be within a negative tolerance of 5mm from the plans <sup>1)</sup>

3.1.6 Side Construction Details

3.1.6.1 Rubbing Strakes

Rubbing strakes may be of any shape provided that they are not wider than 60 mm and/or deeper than 60 mm as shown in the Diagrams and specified in the Measurement Form.

3.1.7 Foredeck and Side decks

3.1.7.1 Coamings

The minimum height of the coamings shall comply with the dimensions on the measurement form.

3.1.7.2 Water Deflectors

Water deflectors may be fixed on the foredeck and/or the sidedecks.

3.1.7.3 No part of the fore and side decks shall fall below a straight line connecting athwartship <sup>1)</sup>

3.1.8 Centreboard case Construction Details

3.1.8.1 Sealing

Adjusting to the centreboard cross-section is permitted at top and/or bottom of the centreboard case. The system is free.

3.1.8.2

Internal laths

Placing laths inside the centreboard case to reduce centre-board lateral play is permitted.

3.1.8.3

**Center-board case level and structure:**

**Upper side face of centreboard case shall be flush with the upper face of main thwart. The structure of the centreboard case shall be rigidly fixed to the main thwart. <sup>4)</sup>**

3.1.9

Mast Thwart Construction Details

3.1.9.1

Holes

Holes for passage or fixing of ropes such as halyards, kicking strap, control lines etc. are permitted, provided that no part of such holes is less than 35 mm from the boat centreline.

3.1.10

Main Thwart Construction Details

3.1.10.1

Notches

Four notches not longer than 35 mm each for passage or fixing of control lines are permitted in the aft side of the main thwart or in a plywood board fixed at the centreboard case, or at the main thwart.

3.1.11

Buoyancy Apparatus Construction Details

3.1.11.1

Buoyancy apparatus

The hull shall have built-in buoyancy compartments under the side decks and the foredeck and/or buoyancy bags under the sidedecks and the foredeck. Buoyancy apparatus shall provide for primary and secondary buoyancy as required.

3.1.11.2

Buoyancy

Boats shall be buoyant even if capsized and/or full of water.

3.1.11.3

Primary Buoyancy

Primary buoyancy is provided for by the built-in buoyancy compartments and/or buoyancy bags, which shall have a total volume not less than 0,360 cubic metre.

- (i) The built-in compartments shall be not less than three, the smallest having a volume of not less than 0,1 cubic metre. They shall be distributed along the hull so as to float the boat approximately level when capsized and/or full of water.

Primary buoyancy compartments shall be substantially watertight.

- (ii) The buoyancy bags shall be not less than five, each giving a positive support of 35 kg at least. They shall be firmly secured to the hull, and if inflatable, they shall be equipped with non return valve. They shall be distributed along the hull so as to float the boat approximately level when capsized and/or full of water.

- 3.1.11.4            Secondary Buoyancy
- If the boat structure is not inherently buoyant, at least 0,1 cubic metre of the primary buoyancy shall be in the form of rigid foam (secondary buoyancy). This secondary buoyancy shall be divided up into not less than three approximately equal volumes and securely attached to the hull, one forward of the mast and the other two aft of the mast, and distributed equally on each side of the boat's centreline.
- 3.1.11.5            Inspection Holes
- Inspection holes of adequate size to enable inspection of the primary and secondary buoyancy shall be provided. These holes shall be closed in a watertight manner with detachable covers capable of resisting dislodgement whenever the boat is capsized or full of water.
- 3.1.11.6            Watertightness
- The measurer shall satisfy himself that buoyancy compartments are watertight.
- 3.1.12                Fittings
- Fittings attached to the hull shall comply with these Rules with regard to position and number.
- The shroud and forestay fittings, gudgeons and/or pintles for the rudder are controlled. Position of all other fittings is optional.
- The position of fittings shall not be adjustable.
- 3.1.13                Mass
- The mass of the hull is submitted to the minimum mass required for a hull with all the apparatuses, equipment and fittings permanently fastened to it including correctors, if any, but without spars, rigging, centreboard and rudder, sails and sheets, as well as safety equipment. Buoyancy bags shall be considered as permanently fixed equipment. The minimum mass is 73 kg. <sup>3)</sup>
- 3.1.13.1            Correctors
- If necessary correctors shall be fastened permanently to the hull: masses and positions shall be noted in the measurement certificate.
- 3.1.14                Centre of Gravity
- The hull shall comply with the requirements for the position of the centre of gravity as specified in the Measurement Form. The hull mass shall be weighed as shown in the Diagrams and the masses measured shall be within the percentage limits defined in the Measurement Form. <sup>3)</sup>

## 3.2 Centreboard

### 3.2.1 Materials

The centreboard shall be constructed of:  
any good quality hardwood or plywood,  
GRP as defined in 3.1.1,  
composites as defined in 3.1.1,  
or a combination of these

Such materials shall be durable and entirely suitable for marine use. special materials as defined in 3.1.1 are prohibited. Epoxy resin is prohibited as laminating agent in GRP centreboards; it is only permitted as glue an/or coating in wooden centreboards. The centreboard shall float.

### 3.2.2 Shape and Dimensions

The dimensions of the centre-board shall not exceed those given on the plans, and the centre-board shall be within 10 mm of the profile shown, when the trailing edge of the centre-board is coincidental with the trailing edge shown on the plans. The centre-board may be faired 80 mm from the edges as shown on the plans. A device 30 mm minimum dimensions shall be fixed to each side of the centre-board 30 mm from the trailing edge in order to comply with the maximum depth of immersion as shown on the plans.

### 3.2.3 Hand Hold

The system of the hand hold is free.

### 3.2.4 Mass

The centreboard is not subjected to mass restrictions.

### 3.2.5 Laths and strips

Laths and strips may be fitted to the upper part of the centreboard.

### 3.3 Rudder and Tiller

#### 3.3.1 Rudder and Materials

Rudder shall be constructed of:  
an good quality hardwood or plywood,  
GRP as defined in 3.1.1,  
composites as defined in 3.3.1,  
or a combination of these

Such materials shall be durable an entirely suitable for marine use. special materials as defined in 3.1.1 are prohibited. Epoxy resin is prohibited as laminating agent in GRP Rudders; it is only permitted as glue and/or coating in wooden rudders. The Rudderhead may be made of metal. The tiller and tiller extension may be made of any suitable material <sup>2)</sup>

#### 3.3.2 Rudder

The dimensions of the rudder blade shall not exceed those given on the plans, and the blade shall be within 10 mm of the profile shown, when the trailing edge of the rudder is coincidental with the trailing edge shown on the Plans. The rudderhead is optional, but shall be within the dimensions shown on the Plans.

Tiller and tiller extension shape and dimensions are optional.

#### 3.3.3 Mass

Rudder and tiller are not subjected to mass restrictions.

### **3.4**            **Spars**

Spars shall be taken as meaning the mast, boom and spinnaker boom.

#### 3.4.1            Materials

The spars shall be made of either sound, knot free wood or of aluminium alloy anodised or otherwise protected against corrosion.

#### 3.4.2            Mast

##### 3.4.2.1            Wooden Mast. Section and Dimensions

The mast section and other dimensions shall comply with the Plans and the Measurement Form. It shall not be rounded to a radius exceeding that shown on the Plans.

##### 3.4.2.1.1            Spreaders

Spreaders, in the positions shown on the Plans shall be fitted to a wooden mast. The material, shape, length and angle of the spreaders are optional.

The spreaders may be streamlined.

##### 3.4.2.1.2            Stiffening or reinforcement

The wooden mast may be stiffened or reinforced below the lower end of the groove for the mainsail.

##### 3.4.2.2            Metal mast. Section and Dimensions

The metal mast shall be of constant section throughout its height, except that the groove for the mainsail may end as shown on the Plans. The minimum cross-sectional dimension is 46 mm.

The groove for the mainsail may be fastened to an extruded tube.

##### 3.4.2.2.1            Spreaders

Spreaders are optional for a metal mast. The material, shape, length and angle are optional.

##### 3.4.2.3            Fittings

Fittings attached to the mast and the position of rigging attachment points shall comply with the Plan and Measurement Form.

Cleats shall not be fixed on the mast above measurement band number 2.

Fairleads, or conduits, may be used for guiding halyards, but they shall not be placed higher than 3400 mm from the lower edge of the measurement band number 1.

##### 3.4.2.4            Measurement Bands

Measurements bands, clearly discernible while racing shall be painted or indelibly marked on the mast:

No 1            with its lower edge not higher than the upper face of the mast thwart,

No 2            with its upper edge 606 mm above the lower edge of band no 1,

No 3            with its lower edge not more than 5100 mm above the upper edge of band no 2.

#### 3.4.3            Boom

- 3.4.3.1 Boom section and Dimensions  
The boom section and other dimensions shall comply with the Plans and the Measurement Form.  
The groove or track for the mainsail shall be included in the measurement of height of the section.  
The groove or track may be cut away at the ends but only as shown on the Plans.
- 3.4.3.2 Fittings  
Fittings on the boom shall comply with the Plans and Measurement Form. They shall not be adjustable for position.  
The use of shock cord to hold out the boom is permitted, provided it does not alter the sail plan.
- 3.4.3.3 Measurement band  
A measurement band, clearly discernible while racing, shall be painted or indelibly marked on the boom with its forward edge not more than 2200 mm from the aft side of the mast track, extended downwards if necessary.
- 3.4.3.4 The line of the upper edge of the boom, including the groove or track, extended if necessary shall not be below the upper edge of band no. 2
- 3.4.4 Spinnaker boom
- 3.4.4.1 The spinnaker boom shall, at its mid-length, be not less than 25 mm in any cross section dimension.  
The overall length of the spinnaker boom, including fittings, shall not exceed 1600 mm.
- 3.4.4.2 Deleted <sup>3)</sup>

### 3.5

#### Rigging

Rigging shall be taken as meaning standing and running rigging.

#### 3.5.1

##### Materials

Standing rigging shall be of either stainless steel wire rope with diameter not less than 2,5 mm, or of galvanised steel wire rope with diameter not less than 3 mm. Halyards shall be of stainless steel wire rope with diameter not less than 2,5 mm and of synthetic rope the diameter of which is optional, or of synthetic rope. Sheets may be of any type and size.

#### 3.5.2

A forestay is compulsory. **The whole forestay shall be of the steel material specified for the rigging, fixed directly to the fore face of the mast and the hull; synthetic or natural fibre material are not permitted for fixing. <sup>4)</sup>**

#### 3.5.3

All running rigging on the mast shall be outside the mast. For the purpose of this rule the groove or track for the mainsail is considered as being outside the mast.

#### 3.5.4

The mainsail and headsail halyards shall be tightened and secured to the hull or to the mast below measurement band no 2.

### 3.6

#### Mass of rigging

#### 3.6.1

The mass of the metal mast, including all fittings, standing rigging and running rigging shall not be less than 7 kg.

#### 3.6.2

The mass of the other spars is not controlled.

### 3.7

#### Sails

#### 3.7.0

##### Sailmaker

#### 3.7.0.1

deleted <sup>3)</sup>

#### 3.7.0.1

The sailmaker shall mark his name or logo, the year of manufacture and the unit mass of the cloth on each sail. <sup>3)</sup>

#### 3.7.1

##### Materials

#### 3.7.1.1

##### Cloths

Sails shall be made of single-ply woven fibre cloth. The use of aromatic polyamides (e.g. Kevlar) or carbon fibres is prohibited.

- 3.7.1.2 Boltropes  
Boltrope shall be:  
(i) For mainsail luff and foot: synthetic rope minimum diameter 7 mm.  
(ii) For headsail luff: flexible wire rope, stainless steel minimum diameter 2,5 mm or galvanised steel minimum diameter 3 mm.
- 3.7.1.3 Primary Reinforcement and Secondary Reinforcement shall be in accordance with the ISAF Equipment Rules of Sailing.
- 3.7.1.3.1 Primary Reinforcement of single-ply woven fibre cloth is permitted at a **corner**.  
A head board within the dimensions of MF 205 in the mainsail is permitted.  
Maximum dimensions for primary reinforcement:  
Mainsail 305 mm  
Headsail 260 mm  
Spi 260 mm
- 3.7.1.3.2 Secondary Reinforcement is permitted at a **corner**,  
Maximum dimensions for secondary reinforcement from the corner measurement point:  
Mainsail 915 mm  
Headsail 780 mm  
Spi 780 mm  
to form a **flutter patch** max. dimension 120 mm  
to form a **chafing patch** max. dimension 300 mm  
to form a **batten pocket patch** max. dimension 175 mm
- 3.7.2 Measurement  
Measurement of sails shall be made according to IYRU 1986 measurement instructions unless otherwise stated in these Rules. <sup>2)</sup>
- 3.7.3 Sail numbers, Emblems, National Letter(s)  
Sail numbers, emblems and national letter(s) shall comply with the IYRU rules, except that on the spinnaker numbers only are required on the forward side.
- 3.7.4 Mainsail
- 3.7.4.1 Dimensions and Making  
Mainsail shall comply with these Rules in respect of  
(a) dimensions and  
(b) making details.
- 3.7.4.2 Position on spars  
No part of the sail shall extend beyond the lower edge of no 3 coloured band and the inner edge of the boom coloured band.
- 3.7.4.3 Making Details
- 3.7.4.3.1 The leech shall not be hollowed, the part of the leech between the aft head point and the upper batten pocket shall be straight with a positive tolerance of 10 mm.  
Contrary the IYRU Measurement Manual procedure for checking the leech hollow, the main sail shall be checked lying flat without any fold. <sup>1)</sup>

- 3.7.4.3.2 Three batten pockets shall divide the leech into equal parts  $\pm 60$  mm. The length of the batten pockets shall not exceed the dimensions on the Measurement Form. Elastic retaining devices are permitted in the batten pockets.
- 3.7.4.3.3 The total number of panels shall not exceed 8. The two lowest panels and the top one may be of any width, except that the widths shall not be greater than the width of the widest intermediate panel. The differences in width between the intermediate panels shall not exceed 100 mm, measured along the chord of the leech. The intermediate panels shall have seams perpendicular to the chord of the leech with a tolerance of  $\pm 10^\circ$ . No tailoring seam is permitted.
- 3.7.4.3.5 Steel cable or rope within the leech is forbidden. Luff and foot bolt ropes shall be of synthetic fibre but not of shockcord. They shall be hand or machine sewn to the sail directly or through a tabling folded or added on. They may end at 300 mm maximum from the tack.
- 3.7.4.3.6. The leech shall be edged by a folded tabling or a taped edge.
- 3.7.4.3.7 A double luffed and/or loose footed mainsail is forbidden.
- 3.7.4.3.8 Battens type, material and shape are optional. They shall not extend beyond the leech.
- 3.7.4.3.9 No intentional openings are permitted in the main sail except for normal cringles. A second tack cringle is permitted close to the luff boltrope.
- 3.7.4.4 Window  
A window in the mainsail is not permitted.
- 3.7.5 Headsail
- 3.7.5.1 Dimensions and Making  
Headsail shall comply with these Rules in respect of  
(a) dimensions and  
(b) making details.
- 3.7.5.2 Position  
No part of the headsail shall extend forehead of the forestay when both tight on close hauled position.
- 3.7.5.3 Making details
- 3.7.5.3.1 The headsail luff shall be roped with flexible wire rope according to the rules.
- 3.7.5.3.2 A double luffed headsail is prohibited.
- 3.7.5.3.3 The use of battens for the headsail is forbidden.
- 3.3.5.3.4 Window  
A window is permitted in the headsail. The total area of the transparent material shall not exceed 0.3 sq.m. The distance to leech, luff or foot shall not be less than 150 mm.
- 3.7.5.3.5 The total number of panels shall not exceed 5. The top and bottom one may be of any width, except that their width shall not be greater than the width of the widest intermediate panel. The differences

in width between intermediate panels shall not exceed 100 mm measured along the chord of the leech. The cloth panels shall have seams perpendicular to the chord of the leech, with a tolerance of  $\pm 10^\circ$ . The bottom panel may be divided in two parts by a transverse tailoring seam, although it will be always considered as one panel. No other tailoring seam is permitted.

- 3.7.5.3.7 The leech shall be edged by a folded tabling or a taped edge. The leech shall not be convex.
- 3.7.5.3.8 The foot shall be a substantially uniform curve, (i.e. shall be part of a circle). It shall be possible to superimpose any two parts of the foot in such a way that they are within 10 mm. of each other when laid flat.
- 3.7.6 Spinnaker
- 3.7.6.1 Dimensions and Making  
Spinnaker shall comply with these rules in respect of:
- (a) dimensions and
  - (b) making details.
- 3.7.6.2 Position  
The spinnaker shall be set in accordance to the IYRU Rules.
- 3.7.6.3 Measurement  
Contrarily to the IYRU sail measurement instructions the spinnaker shall be measured according to the Plans.
- 3.7.6.4 Making Details
- 3.7.6.4.1 The width of the cloths and assembling of the panels is optional provided that the panels do not exceed five in number. The bottom panel may be divided by a transverse seam, although it will be always considered as one panel. No other tailoring seam is permitted <sup>2)</sup>
- 3.7.6.4.2 The leeches can only be edged by folded tabling or taped edge.

### 3.8

#### Fittings

The fittings which are permitted by these Rules, Measurement Form and Plans shall be fixed in the position stated.

- 3.8.1 The type and dimensions of the fittings are optional, provided that their position is not adjustable.
- 3.8.2 Thimbles, rings, eyeplates and fairleads are not restricted.
- 3.8.3 Barber-haulers made with the authorised fittings are permitted.
- 3.8.4 An automatic drum device for spinnaker halyard is prohibited
- 3.8.5 Fairleads for the headsail sheets shall be directly fixed to the hull. A packing piece of maximum 10 mm may be used between fairlead and hull.  
Cleats for the headsail sheets may be placed on brackets placed inside the sidedeck.  
Cleats for all sheets shall be in a fixed position and not swivelling.
- 3.8.6 Materials, type and system of the spinnaker boom downhaul are optional.
- 3.8.7 The use of wedges and/or chocks in the mast thwart notch is permitted.
- 3.8.8 The system for closing the covers of the transom drainage ports is optional, but any fitting used shall be within the limit number of those listed in the Measurement Form.
- 3.8.9 A wedge and/or chockcord may be used for holding the centreboard in position.
- 3.8.10 Sheaves as mentioned in MF 305 are intended to comprise any fitting or device including a rotating part used as a sheave. <sup>4)</sup>**  
A rotating sheave is compulsory on top of mast for the main sail halyard as well as at end of boom for the outhaul of the main sail.
- 3.8.11 Compass may be of any type but shall show the bearing of the boat course only excluding any other indication (for example wind shift).

### 3.9

#### Mass

The all up mass of the fully-rigged boat shall not be less than 95 kilograms. The all up mass is measured including:<sup>3)</sup>

- (a) Hull with buoyancy apparatuses, fittings and correctors, if any
- (b) Centreboard
- (c) Rudder and Tiller
- (d) Mast, Boom and Spinnaker boom with rigging
- (e) Sheets

but excluding:

- (f) Sails
- (g) Safety Equipment (See Rule 4.2)

The items to be weighed shall be in dry and clean condition.

