

INTERNATIONAL FLYING FIFTEEN CLASS RULES 2005

PART A - ADMINISTRATION RULES

1. GENERAL

The International Flying Fifteen Class is a one design racing keelboat. To ensure that the administration of the Class and objective of the Class Rules are maintained, before any International Flying Fifteen may be raced, the following documents must have been issued and the requirements adhered to:

- (a) International Class Fee Receipt
- (b) ISAF Plaque
- (c) Registration Certificate
- (d) Measurement Certificate
- (e) Sail Endorsements
- (f) Endorsements showing the owner to be a current member of an association affiliated to Flying Fifteen International (FFI).

All the above documents except the ISAF Plaque shall be included within either the RYA Yacht Racing Division Registration Log Book or a Certificate issued by the Certification Authority. The Certification Authorities are the National Flying Fifteen Associations of Australia, New Zealand, Ireland, Hong Kong, South Africa and France, and the Royal Yachting Association for all other countries. Both the Registration Log Books and Certificates should be in the possession of owners at all times. The above documents are obtained as follows:

2. INTERNATIONAL CLASS FEE RECEIPT

An International Class Fee must be paid by the builder for each boat at the commencement of building whether or not it is subsequently registered and measured. Payment shall be made via a National Flying Fifteen Association to Flying Fifteen International acting as agents for the ISAF. Payments shall be in sterling and on receipt of payment an International Class Fee Receipt, an ISAF Plaque and a sail number will be issued.

The ISAF Plaque shall be fixed in a visible position in the cockpit before a boat is eligible to race for all boats first certificated after 1st March 1991.

The amount of the International Class Fee shall be reviewed by ISAF annually in consultation with FFI. Owners shall then apply to their Certification Authority (see Rule A1) for a Measurement Certificate.

3. MEASUREMENT CERTIFICATE

The owner shall have the boat measured in accordance with Part B of these Rules. Only Approved Class Measurers (that is Measurers approved by their National Yachting Authority and subsequently ratified by FFI - such application being supported by a copy of the NYA letter of ratification) shall measure items covered by Rules B2 to B8 inclusive. An Approved Class Measurer or a Measurer approved by the National Yachting Authority of the country in which measurement takes place can measure items covered by Rules B9 et seq. On completion of satisfactory measurement the Measurer shall supply the owner with a completed and signed Measurement Form.

Owners shall then apply to their Certification Authority (see Rule A1) for a Measurement Certificate enclosing a completed Measurement Form together with the International Class Fee Receipt and any registration fee that the Certification Authority may specify. Upon receipt of these, the Certification Authority may issue a Measurement Certificate to the owner. At the same time the owner shall submit three proposed names for the boat. No two boats in the Class shall have the same name and owners are particularly requested to submit three alternatives when applying for a Measurement Certificate.

Change of ownership or boat name invalidates the Measurement Certificate. The owner shall apply to the Certification Authority for a new Certificate, returning the old Certificate together with any re-registration fee that the Certification Authority may have specified. The owner shall also complete the application for re-registration contained within the registration log book.

Hull Replacement

The sail number and building fee apply only to the hull for which they were issued and are not transferable. If for any reason a hull is replaced by a new one, a new building fee must be paid and a new sail number must be obtained.

4. SAIL ENDORSEMENTS

The owner shall have all new or substantially altered sails measured by an approved Measurer (see Rule A3). After completion of a satisfactory measurement the Measurer shall sign, number and date both the sail at its tack and the Measurement Certificate. The number allocated shall be unique and in the form "2M 3218", where 2M represents the second mainsail measured for this boat and 3218 the boat number.

The certificate shall carry sail endorsements in accordance with the Class Rules. The boat shall race only with sails endorsed on her certificate, except that in the case of a helmsperson sailing a borrowed boat, the boat may race with any combination of the sails endorsed on the certificate of the borrowed boat, or on the certificate of a boat owned by the helmsperson. This certificate shall also be examined by the Organising Club, and such sail numbers declared to the Race Office at registration.

When it is satisfied that a sail has been lost or damaged to such an extent that it cannot be used, the Race Committee may authorise the use of a replacement sail.

5. COMPLIANCE WITH CLASS RULES

For the registration, Measurement Certificate and sail endorsement to be valid, all hulls, spars, sails and equipment shall comply with the current Class Rules, except that items covered by Rules B2 to B9 and B11 may comply either with the current Class Rules or with the corresponding Class Rules applying to them when the original Measurement Certificate was issued.

Where substantial repairs to the hull are undertaken, such repairs shall be measured by an Official Flying Fifteen Class Measurer and must comply with the rules applicable at the time of original measurement.

Where substantial alterations to the hull are undertaken, the boat shall be completely re-measured under current Class Rules by an Official Flying Fifteen Class Measurer.

Following such alterations or repairs the owner shall apply to their Certification Authority for a new Measurement Certificate enclosing a new Measurement Form and the old Certificate. New spars shall be measured by an Official Flying Fifteen Class Measurer or a Flying Fifteen Class Maintenance Measurer and shall comply with the current Class Rules.

6. CHECK MEASUREMENT

All hulls, spars, sails and equipment shall be liable to re-measurement at the discretion of the ISAF, a Race Committee, FFI or any Flying Fifteen Association affiliated to FFI.

7. REFUSAL OR WITHDRAWAL OF CERTIFICATE

Notwithstanding anything contained within these Rules, the National Authority and FFI shall have the right to refuse to grant a Certificate or sail endorsement to, or to withdraw a Certificate or sail endorsement from, any boat at any time. Boat owners are required to return their Log Book to the Certification Authority upon request or upon any dealings pertaining to the boat.

8. NOTICE OF RESPONSIBILITY

It is the owner's responsibility to ensure that the hull, spars, sails and equipment comply with the Class Rules at all times and that any alteration, replacement or repair does not invalidate the Measurement Certificate. The ISAF, FFI, Flying Fifteen Associations, Certification Authorities and Measurers are under no legal responsibility in respect of these Rules, plans or accuracy of measurement and no claims arising therefrom can be entertained. It shall also be made clear that it is the owner's responsibility to contact an appropriate Measurer and to make his own contractual agreement with that Measurer.

PART B - MEASUREMENT RULES

1. GENERAL

- 1.1 This is a one design class and the object of these Rules is to ensure that in hull form, hull weight, fin keel, rudder, rig and sails the boats are as alike as possible.
- 1.2 These Rules shall be read in conjunction with Plans only where specified herein, and with the official Measurement Form; no Plan or other document shall otherwise be used for interpreting these Rules. Any interpretation shall be made by the ISAF after consultation with FFI.
- 1.3 In the event of discrepancy between these Rules, the Measurement Form, and/or the plans, the matter shall be referred to the ISAF.
- 1.4 All boats shall be built in accordance with Class Rules and Specifications e.g. Line Plan and offsets in Plan No. 93/1, other Official Plans, Measurement Form etc.
- 1.5 The Measurer shall report on the Measurement Form anything which he considers to be a departure from the intended nature and design of the boat, or to be against general interest of the class, and a Certificate may be refused, even if the specific requirements of the Rules are satisfied.
- 1.6 A Measurer shall not measure a hull, spars, sails or equipment owned or built by himself or in which he has any personal involvement.

2. CONSTRUCTION

- 2.1 The Flying Fifteen may be built by any builder and no licence is required. Prior to the issue of the International Class Fee Receipt (Rule A1) the builder will submit details of the materials of construction to the relevant National Association Chief Measurer for approval.
- 2.2 Scantlings and materials are optional and the hull may be built of any material. The minimum finished weight per unit area of the deck and the hull shell shall be 3.20kg/m^2 . The minimum finished weight per unit area of the transom shall be 3.20kg/m^2 . The deck is defined for the purposes of this Rule (B 2.2) as "Any moulding above the sheerline".
- 2.3 Core samples may be taken to measure the weight per unit area.
- 2.4 The minimum thickness of the decks shall be 5mm, except in the case of decks made of light alloy, glass fibre or fabric reinforced synthetic resin when the minimum thickness shall be 2.5mm.
- 2.5 Rubbing strakes are optional and may be of any material or construction. If fitted, from the sheerline the plan width shall not exceed 76mm and the depth shall not exceed 60mm.

3. IDENTIFICATION MARKS

- 3.1 The hull shall carry the sail number, cut, stamped, branded or moulded into the hog in figures not less than 25mm in height.
- 3.2 The mainsail and spinnaker shall carry identification marks as indicated in Rule B13.3.
- 3.3 All emblems, numbers and letters shall be of a durable material securely attached.

4. HULL MEASUREMENT

- 4.1 Length measurements shall be taken parallel to the base line from where the aft face of the transom meets the line of keel at centre, both produced if necessary. Depth measurements shall be taken perpendicular to the base line. Measurement sections, including the aft edge of the transom, shall be perpendicular to the base line.
- 4.2 The length overall (including any stem head fittings) shall not exceed 6096mm and shall not be less than 6046mm.
- 4.3 The profile of the transom shall conform to Plan No. 93/1 as follows: The profile shall be checked by a template made to Plan No. 93/3. The template shall touch or clear by not more than 15mm in a radial direction, when applied flush with the rocker at the centre line. The transom shall be flat and vertical to the base line, with a tolerance of 5mm over the height of the transom when testing for being vertical and 5mm over the overall width when testing for flatness, except that where it joins the skin the corners may be rounded to a radius of not more

than 13mm when the profile shall be determined by projecting the line of the skin to the template.

Construction lips and flanges between deck and hull and associated rubbing strake, if applicable, do not violate this requirement.

- 4.4 The total camber of the fore and aft decks shall be not more than 150mm. No part of the fore or aft deck shall fall below the sheerline. The athwartships section of the fore and aft decks shall be a fair curve from sheer to sheer.
- 4.5 The side deck and bulkhead assembly shall not fall below the sheerline within 280mm of the sheerline. The minimum plan width of the side deck and bulkhead assembly shall be 356mm from the sheerline.
- 4.6 The aft edge of the cockpit shall be not more than 1830mm nor less than 1540mm, from the transom measured horizontally. The forward edge of the cockpit excluding the mast slot or fittings designed to locate the mast shall be not more than 3780mm nor less than 3630mm from the transom measured horizontally. The decks shall be constructed so as to locate the mast as provided in Rule B10. Spinnaker pockets and spinnaker chutes may be installed, provided they drain into the cockpit and/or overboard. Spinnaker pockets shall not start within 280mm of the sheerline and must be aft of the breakwater. Spinnaker chutes may be installed anywhere in the foredeck forward of Station 2.
- 4.7 A breakwater shall be fitted. The combined height of the deck and the breakwater, measured from the sheerline, shall be a minimum of 175mm at the centre line and may be reduced in a fair convex curve to within 25mm of the sheer at which point the height may be reduced to 25mm. The foremost edge of the breakwater shall not exceed 4475mm measured from the aft edge of the transom.
- 4.8 Measurement stations shall be marked at the following distances from the hull datum point at the lower aft edge of the transom.

Station 1	5613mm
Station 2	5311mm
Station 3	4547mm
Station 4	3785mm
Station 6	2261mm
Station 8	737mm

The base line shall be set up at 305mm below the keel (rocker) at Station 2 and 381mm below the hull datum point.

The sheerline position at each measurement Station shall be determined and marked on the deck.

The following measurements shall conform to those stated on the Measurement Form:

- The dimension from baseline to keel (rocker) at Stations 1, 3, 4, 6 and 8.
 - The sheerline height expressed as a distance below "top of template" at Stations 2, 3, 4, 6 and 8.
 - The sheerline height at the stemhead above baseline.
 - The height of the waterline for Stations 4 and 6.
 - The beam, calculated from the horizontal distances from template to sheerline at Stations 2, 3, 4, 6, and 8.
- 4.9 The skin profiles at Sections 2, 3, 4, 6 and 8 shall conform to Plan No. 93/1. The profiles shall be checked by female templates made to Plan No. 93/3. The templates shall touch the profile or clear by not more than 15mm in a radial direction when the templates are applied flush with keel (rocker) at the centre line. In addition the profile of each section shall be a fair continuous convex curve without knuckles or any features which could act as a particle breaker (spray rail).
- 4.10 The profile of the bow between Station 2 and the stem, shall be a fair curve, as shown on Plan 93/1.
- 4.11 A floor creating "watertight" compartments is permissible providing that:
- It is not less than 300mm below the sheerline.

- (b) It incorporates a channel of 140mm minimum width extending to the skin of the hull for at least the full length of the keel flange. Internal mouldings may form the floor of the channel if the density of the moulding at the floor of the channel is no less than that of the keel pad and if it is securely bonded to the keel pad.
- (c) Self bailers shall not be fitted through internal mouldings.

4.12 The plan width of the cockpit floor, aft of the shrouds, shall not be less than 600mm.

5. BUOYANCY

The boat shall have a minimum of four separate "watertight" compartments that are capable, in the absence of the removable buoyancy, of allowing the boat to float level if the cockpit is flooded and of keeping the boat afloat if all but 50% of the compartments are punctured. All "watertight" compartments shall be capable of being drained.

Removable buoyancy apparatus shall provide not less than 443kg buoyancy, not less than 100kg of which shall be forward of the points of intersection of the shrouds with the deck. The buoyancy shall be securely fixed or contained within the boat and shall be so distributed that the boat will float level when swamped with all "watertight" compartments flooded. Any one unit of the apparatus shall provide not more than 130 kg buoyancy nor less than 1kg buoyancy. Integral forms of buoyancy shall not contribute to the removable buoyancy apparatus for the purpose of this Rule.

6. KEEL

The following Rules apply to the keel in its finished condition.

- 6.1 The fin keel shall be of cast iron with a finished weight of 181kg plus/minus 12kg. The finish is optional, but holes shall not be filled with materials of greater density than cast iron.
- 6.2 The configuration of the keel and keel flange shall conform in shape to that indicated on Plan No. 97/2.
- 6.3 The profile shall be checked by a female template made to Plan No. 97/2. The template shall touch or clear by no more than 13mm when applied flush to the top edge of the flange.
- 6.4 The sections shall be checked by four female templates made to Plan No. 97/2. The templates shall touch or clear by not more than 5mm (measured normal to the surface) when applied at positions defined on the keel from markings transferred from the profile template.
- 6.5 No keel sections parallel to the baseline of the profile template shall have a concavity of more than 1mm.
- 6.6 The keel sections parallel to the baseline in the area between 300mm and 500mm above the extension of the baseline of the profile template shall have a maximum athwartships dimension of 37mm plus/minus 5mm.
- 6.7 The athwartships dimension of the keel in the area between 500mm above the extension of the baseline of the profile template and a line 30mm below the top of the flange shall not be more than 50mm.
- 6.8 The plan width of the keel flange shall be 130mm plus/minus 6mm with a maximum of 10mm radius on all four corners and on all four edges. The thickness of the flange, 10mm in from the edges shall be not less than 10mm.
- 6.9 Fairing pieces are prohibited around the keel flange. The keel flange shall not be rebated into the hull and the upper edge of the flange shall not clear the hull by more than 10mm at any point.
- 6.10 The keel weight may be adjusted to conform with B6.1 by cavities within an area of 695mm to 795mm measured from the aft tip of the keel.
- 6.11 The fore end of the keel shall not be less than 3860mm or more than 4040mm from the hull datum point measured parallel to the base line.
- 6.12 There shall be not less than 4 pairs of stainless bolts or studs with a minimum diameter of 9mm. Bolts or studs shall be arranged in pairs opposite each other on the port and starboard side of the flange at not less than 50mm centres and the fore and aft pairs shall be within 100mm of the keel flange ends.

7. RUDDER

- 7.1 The profile shall be checked by a female template made to Plan No. 97/2. The template shall touch the rudder or clear by not more than 13mm at any point when it is applied flush with the leading edge which shall not deviate from a straight line by more than 1.5mm.
- 7.2 The thickness of the rudder shall not exceed 45mm and fairing pieces are prohibited.
- 7.3 The fore-end of the rudder, when the rudder is in the fore and aft position, shall be not less than 710mm or more than 762mm from the aft face of the transom and the gap between the top edge of the rudder and the hull at the centre line, shall not vary by more than 5mm.
- 7.4 The centre line of the rudder stock shall intersect the aft deck at a point not less than 470mm nor more than 736mm from the aft face of the transom.
- 7.5 The rudder and stock together shall weigh not less than 3.8kg. The stock shall be made of solid stainless steel with a diameter of not less than 18mm or of solid bronze with a diameter of not less than 23mm, or a stainless steel tubular shaft with an outside diameter of not less than 25mm and a wall thickness of not less than 2.5mm.

8. WEIGHT

- 8.1 The weight of the hull in dry condition, including specified removable buoyancy apparatus, hatch covers and all fittings permanently fixed by screws, bolts, glue or resin, but excluding fin keel, keel bolts or studs, rudder, tiller, sheet winches, pump, mast, rigging, sails and equipment, shall be not less than 138kg.
- 8.2 If the weight is less than defined, correctors, total weight not exceeding 21kg, shall be through fastened and be clearly visible within the cockpit area. Each corrector shall be identified with its individual weight, which shall be clearly visible for inspection, and the number and total weight of correctors shall be recorded on the measurement certificate.

Correctors may subsequently be removed after a period of not less than one year from the original date of registration subject to the hull being presented for reweighing by an Official Flying Fifteen Class Measurer in the same condition as for B8.1. Correctors may then be reduced in weight or removed and the new number of correctors and their total weight shall be recorded on the Certificate which must be ratified by the National Authority. Reweighing and adjustment or removal of correctors may not take place within one year of a previous weighing, except where substantial alterations to the hull are undertaken and the boat is completely remeasured in accordance with Rule A5.

(Re-weighing under the provisions of 8.2 is permitted in the period 01 December 2004 to 01 March 2005)

9. MAST

- 9.1 The mast spar shall be of wood or aluminium alloy extrusion.
- 9.2 The mast shall have a continuous fixed groove which may or may not be integral with the spar section. The groove shall be included in the sectional dimensions only if both it and the mast spar are of aluminium alloy.
- 9.3 Measurement bands, not less than 10mm wide, shall be clearly and indelibly marked on the mast spar, so that bands number 1, 2 and 3 are clearly discernible from outside the boat when racing, as follows:
 - Number 1 The lower edge of which shall be not more than 6860mm above the upper edge of band No. 4.
 - Number 2 The upper edge of which shall be not more than 6248mm below the lower edge of band No. 1.
 - Number 3 The lower edge of which shall be not more than 4724mm above the upper edge of band No. 4.
 - Number 4 The upper edge of which shall be at or below the sheerline with the mast spar in a vertical position.

- 9.4 Below band No. 3 and 300mm above band No. 2 the mean of both the fore and aft and athwartship section dimensions shall be not less than 60mm nor more than 80mm. The mast spar may be tapered above band No. 3.
- 9.5 The weight of the mast, including normal permanent fittings and rigging, shall be not less than 10.5kg.
- 9.6 The centre of gravity of the mast in the same condition as (9.5) above, with the rigging secured along the mast and with the tails led back if necessary, shall be not less than 1828mm above the upper edge of band No. 2.
- 9.7 The flexibility of the mast spar, with all the rigging slack, shall be tested by supporting it horizontally at the lower edge of band No. 1 and at the upper edge of band No. 4. When applying a load of 20kg at 1000mm below the lower edge of band No. 3 the downward deflections at this position when the mast fore and aft axis is vertical and when it is horizontal, shall not exceed 145mm.
- 9.8 Rotating and permanently bent masts are prohibited but a set due to distortion of up to 50mm between bands No. 1 and No. 2 is permitted.
- 9.9 A mast jack or equivalent device, if fitted, shall be pinned so that it cannot be adjusted while racing and so that the maximum permitted distances of bands numbers 1 and 3 above the sheerline cannot be exceeded.
- 9.10 No part of spinnaker pole fitting(s) attached to the mast shall project more than 50mm from the mast.
- 9.11 The effective pivoting points of the gooseneck fitting shall be not more than 40mm measured from the aft side of the mast. If there is a groove in the mast for the sail, the measurement shall be to the foreside of the groove or prolongation thereof.
- 9.12 The heel of the mast, or the shoulder of the mast where there is a tenon, being the effective bearing surface of the base of the mast with the hog of the boat shall be not less than 450mm below the sheerline (upper edge of band 4).

10. MAST STEPPING

- 10.1 The foreside of the mast spar at deck level shall be not more than 3850mm or less than 3695mm from the aft face of the transom measured horizontally.
- 10.2 There shall be a mastgate to limit aft movement of the foreside of the mast spar at deck level to:
 - (a) a maximum of 1676mm from the point where the headsail luff or its extension meets the deck; and
 - (b) a minimum of 520mm from the point where the shrouds (or the extension of the line of the shrouds) meet the deck. Altering the position of attachment of shrouds, forestay or headsail tack is prohibited whilst racing.
- 10.3 There shall be no control of the movement of the mast at more than 50mm above the actual height of the deck, except that exerted by the sails and booms and the rigging specified in Rule B12.
- 10.4 The use of any device to alter the position of the heel of the mast whilst racing is prohibited.

11. BOOMS

- 11.1 The main boom spar shall be of wood or aluminium alloy extrusion.
- 11.2 The main boom spar, including sail track but excluding other fittings, shall be able to pass through a ring of 125mm internal diameter.
- 11.3 When fitted to the mast, the upper edge of the boom spar (or its extension) shall intersect the mast spar at or above the upper edge of mast band No. 2 when the boom spar is at 90° to the mast spar.
- 11.4 A measurement band, not less than 10mm wide, shall be marked on the main boom so that it is clearly discernible when racing with its inner edge not more than 3000mm from the aft side of the mast measured along the top of the boom spar. If there is a groove in the mast spar for the sail, the measurement shall be to the foreside of the groove or prolongation thereof.

- 11.5 Permanently bent main boom spars are prohibited but a set due to distortion of up to 10mm between the measurement band and the mast is permitted.
- 11.6 The spinnaker pole(s) may be of any material. The overall length of the spinnaker pole(s), including fittings, shall not exceed 2000mm.

12. MAST RIGGING AND FITTINGS

- 12.1 The mast rigging shall consist of one pair of shrouds and one forestay, which shall be of galvanised steel or stainless multi-strand wire diameter not less than 2.3mm. The effective attachment to the hull shall also be of galvanised or stainless steel or of bronze construction. There shall be one pair of spreaders which shall be of aluminium alloy.
- 12.2 With the mast stepped and shrouds attached, the point of intersection of the line of the shrouds and the surface of the mast spar shall not be more than 150mm above the lower edge of band No. 3. The distance between the points of intersection of the line of the shrouds with the deck or rubbing strakes shall be not less than 1270mm. The points of intersection with the deck or rubbing strakes shall be not more than 45mm outside the sheerline.
- 12.3 The headsail luff or its extension shall be attached to and meet the mast spar at, or below, the lower edge of band No. 3.
- 12.4 The use of a forestay is optional, however if a forestay is fitted, it shall be separate from the headsail luff wire. The forestay or its extensions shall meet the mast spar between the headsail luff wire and a point 80mm above the lower edge of band No. 3 and shall meet the deck not more than 280mm nor less than 5mm forward of the headsail luff wire.
- 12.5 Adjustment of the spreaders or the length of the shrouds is prohibited whilst racing.
- 12.6 The extension of the line of the top of the spinnaker halyard when held taut at right angles to the mast shall meet the foreside of the mast not more than 102mm above the lower edge of band No. 3. If led through an eye or a block no part of such eye or block shall extend more than 76mm from the foreside of the mast.
- 12.7 The type and material of all other mast rigging and fittings is optional.
- 12.8 Kicking straps are permitted, but these must be fixed to the centre line of the hog or to the mast.
- 12.9 (a) No sail shall be sheeted over or through an outrigger, except as permitted in Rule 12.9(b). An outrigger is any fitting or other device so placed that it could exert outward pressure on a sheet or sail at a point from which, with the boat upright, a vertical line would fall outside the sheerline.
 - (b) (i) Any sail may be sheeted to or led above the main boom.
 - (ii) A headsail may be sheeted or attached at its clew to a spinnaker pole, provided that a spinnaker is not set.
 - (iii) For spinnaker sheets attached to the clews of a spinnaker and for lines attached to the spinnaker sheets, outriggers of not more than 50mm are permitted, provided they are within 100mm fore and aft of the shrouds.

13. SAILS

13.1 Measurement

- 13.1.1 Measurement shall be carried out in accordance with the Equipment Rules of Sailing (ERS).
- 13.1.2 The Rules in B.13 are **closed class rules**. Where a term is used in its defined sense, it is printed in "**bold**" type if defined in the ERS, and in "*italic*" type if defined in the Racing Rules of Sailing (RRS).
- 13.1.3 **Sails** shall comply with the current **Class Rules** (see Rule A5).

13.2 Certification

- 13.2.1 See Part A.

13.3 Sail Identification

- 13.3.1 The sail identification shall comply with the RRS, except that national letters may be placed in front of the numbers at the same level.
- 13.3.2 The class insignia shall conform with the dimensions and requirements as detailed in Plan number 7.
- 13.3.3 Sail numbers shall be issued by the Certification Authority.

13.4 Sailmaker

- 13.4.1 Sailmaker is optional.

13.5 Mainsail

13.5.1 Construction

- (a) The construction shall be: **Soft sail, single ply sail.**
- (b) The **body of the sail** shall consist of **woven ply**. The **ply** fibres shall be of polyester.
- (c) The **sail** shall have 4 **batten pockets** in the **leech** and shall be closed at the **luff** end.
- (d) The **leech**, between the **aft head point** and the intersection of the **leech** and the upper edge of the upper **batten pocket**, shall be straight or hollow.
- (e) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, batten pocket elastic, battens, mast and boom **spar** groove slides, **leech** line with cleat, two **windows**, tell tales, sail identification, sailmaker labels.

13.5.2

Dimensions	Minimum	Maximum
Leech length		6530mm
Half width		2015mm
Three-quarter width		1150mm
Top width		130mm
Primary reinforcement		340mm
Secondary reinforcement:		
from sail corner measurement points		1020mm
for flutter patches		140mm
for chafing patches		1020mm
for batten pocket patches		175mm
Tabling width		40mm
Seam width		20mm
Total window area		0.3m ²
Window to sail edge	150mm	
Headboard width measured at right angles to the luff		102mm
Batten pocket length:		
upper pocket:		
inside		782mm
other pockets		
inside		1035mm
Batten pocket width:		
inside		60mm
Head point to intersection of leech and centreline of uppermost batten pocket	1250mm	
Clew point to intersection of leech and centreline of lowermost batten pocket	1250mm	
Batten pocket distances, measured between the intersections of the pocket centerlines and the leech	1200mm	

13.6 Headsail

13.6.1 Construction

- (a) The construction shall be: **Soft sail, single ply sail**
- (b) The **body of the sail** shall consist of **woven ply**. The **ply** fibres shall be of polyester.
- (c) The **leech** shall be straight or hollow between the **aft head point** and the **clew point**.
- (d) The following are permitted: Stitching, glues, tapes, corner eyes, Cunningham eye, **luff** hanks, **luff** wire, **leech** line with cleat, one **window**, tell tales, sailmaker labels.

13.6.2

Dimensions	Minimum	Maximum
Luff length	4030mm	4115mm
Leech length		3886mm
Foot length		2362mm
Foot median		3870mm
Foot irregularity		35mm
Top width		40mm
Primary reinforcement		275mm
Secondary reinforcement:		
from sail corner measurement points		825mm
for flutter patches		100mm
for chafing patches		825mm
Tabling width		40mm
Seam width		20mm
Window area		0.3m ²
Window to sail edge	150mm	

13.7 Spinnaker

13.7.1 Construction

- (a) The construction shall be: **Soft sail, single ply sail**.
- (b) The **body of the sail**, **primary reinforcement**, and **secondary reinforcement** shall consist of **woven ply**. The **ply** fibres shall be of polyester or polyamide.
- (c) The **sail** shall be symmetrical.
- (d) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales, sailmaker labels, sail identification.

13.7.2 The **sail** shall be measured folded along its **centreline** with the **leeches** together. The **head point** is defined as the highest point of the **sail** at the head.

Dimensions	Minimum	Maximum
Leech lengths measured around the leeches		4725mm
Distances from clew points to mid point foot measured around the foot		1830mm
Distances between points on the leeches 2350mm (in a direct line) from the head point and a point on the centre line 2350mm from the head point	1460mm	1760mm
Foot median		5300mm
Difference between leeches		50mm
Primary reinforcement		295mm
Secondary reinforcement:		
from sail corner measurement points		885mm
for spinnaker recovery patches		350mm
Tabling width		40mm
Seam width		20mm

13.8 Additional Rules

13.8.1 Sail Setting

When *racing*:

(a) Mainsail

- (i) The highest visible point of the **sail**, projected at 90° to the mast **spar**, shall not be set above the lower edge of the mast **spar band** No. 1.
- (ii) The intersection of the **leech** and the top of the boom **spar**, each extended as necessary, shall not be aft of the fore side of the boom **spar band** when the sail is set.

(b) Headsail

The **tack point**, measured along the line of the **luff**, shall not be less than 100 mm above the deck when the sail is set. The depth of any step or concavity in the deck, excluding the spinnaker chute, between the breakwater and the stem head shall be added to this measurement.

13.8.2 Sail Limitations

(a) Registration

- (i) Not more than two mainsails, two headsails and two spinnakers shall be registered in the first twelve months. Thereafter not more than one mainsail, one headsail and one spinnaker shall be registered in each twelve month period commencing on the anniversary of the date on which the original measurement of the boat was completed, except that in the event of the change of ownership of the boat, one additional mainsail, one additional headsail and one additional spinnaker may be registered by the new owner in the corresponding twelve month period.
- (ii) Any boat competing in a World Championship or qualifying event referred to in Paragraph 4 of the Championship Regulations may have one additional mainsail, one additional headsail and one additional spinnaker registered in the corresponding twelve month period.
- (iii) A sail may be replaced in the event of genuine loss or damage beyond reasonable repair, provided that the sail has been registered within the previous four calendar years, and that the replacement sail is approved by an Approved Class Measurer of the Certification Authority of that boat.

(b) When Racing

Not more than one mainsail, one headsail and one spinnaker shall be carried on board when *racing*.

(c) During Championships

At International, National, State and Area Championships, not more than two mainsails, two headsails or two spinnakers shall be used. When it is satisfied that a sail has been lost or damaged to such an extent that it cannot be used, the Race Committee may authorise the use of a replacement sail.

14. PROHIBITIONS

14.1 Competitors shall use no device designed to position their bodies outboard other than stiffeners worn under the thighs, hiking straps and hobbles. Hiking straps and hobbles shall not extend outboard of the sheerline.

Any system attached to the crew shall have a quick release device capable of being operated whilst the system is under load.

14.2 Self draining cockpit, except as provided within these Rules.

14.3 Double luffed, venturi and zipped sails, loose footed mainsails.

- 14.4 Any device or devices which indicate, transmit, receive, or collate data related to wind speed, boat speed, or boat location are prohibited.

Devices which indicate time, wind direction, or boat direction are permitted, provided they cannot receive or transmit data.

- 14.5 More than 4 self-bailers (no one of which shall have an effective drainage area of more than 650mm²).
- 14.6 Electric, Hydraulic and Pneumatically powered devices.

15. EQUIPMENT

The following equipment shall be on board when racing:

- 15.1 Two hand bailers each of at least one litre capacity or one hand bailer of at least one litre capacity and one pump.
- 15.2 One paddle of minimum overall length 1000mm and minimum weight of 0.4kg.
- 15.3 One anchor, minimum weight 2kg, with not less than 18 metres of line of 6mm minimum diameter. The anchor can be made up to weight by the addition of chain provided that the weight of chain does not exceed 0.6kg.
- 15.4 One buoyancy aid for every person on board.
- 15.5 A towing fairlead of stainless steel construction, with a minimum internal diameter of 25mm and minimum gauge of 4mm, shall be fitted within 700mm of the stem head.

16. CREW

- 16.1 There shall be two persons on board when racing.
- 16.2 A competitor's clothing and equipment shall not weigh more than 10kg, excluding clothing (including footwear) worn only below the knee.

17. ADVERTISING

Advertising on boats is permitted as follows:

- 17.1 Advertising shall be in accordance with ISAF RRS Regulation 20 (Section II - Appendix 1).
- 17.2 Advertising shall be to Category C in accordance with Regulation 20.3.1 (b), with the following restrictions:
- (a) Additional advertising shall be restricted to not more than two additional advertisers.
 - (b) Advertising on hulls may be displayed over not more than 50% of the hull length.
 - (c) Advertising on spinnakers may be displayed without any additional restrictions.
 - (d) Advertising of one advertiser may be displayed on either the mainsail or the headsail and it may be on both sides of the sail. It shall have a width no greater than two-thirds of the length of the foot of the sail, and a height no greater than two-ninths the length of the foot of the sail. On the mainsail, it shall be placed below the national letters and sail numbers.
 - (e) Advertising of one advertiser may be placed on the mainmast and main boom, within one-third of the length of the mast, and two-thirds of the length of the boom.

OFFICIAL PLANS

Lines plan and table of offsets	93/1
Keel & rudder - lines & templates	97/2
Hull & transom templates	93/3
Sail insignia	7

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	1 March 2002
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