

Swedish IF-boat Association
CLASS RULES FOR THE IF-BOAT 2001
Issue 2001-04-21
Translated from Swedish by Marek Janiec on 1999-01-07
Revised by Marek Janiec on 2001-04-21

Authority: The Swedish Sailing Federation, af Pontins väg 6, S-115 21 STOCKHOLM

The IF-boat was designed 1967 by Tord Sundén and it was adopted as a national One Design Class in 1970 by The Swedish Sailing Federation.

SECTION A - FUNDAMENTAL RULES

- A.1 One Design Clause
- A.2 Abbreviations
- A.3 Authority
- A.4 Language
- A.5 Class Rules and their Interpretations
- A6 ISAF Rules

SECTION B - ORGANISATION

- B.1 Administration of the class
- B.2 Sail Numbers
- B.3 Measurers
- B.4 Measurement Certificates
- B.5 Change of Ownership
- B.6 Amendments to Class Rules

SECTION C - CONDITIONS FOR RACING

- C.1 Equipment
- C.2 Total weight
- C.3 Sails and Setting of Sails
- C.4 Crew
- C.5 Advertising
- C.6 Certificate
- C.7 Membership

SECTION D - HULL

- D.1 Builders
- D.2 Measurement and Certification
- D.3 Hull Shell
- D.4 Deck
- D.5 Hull Additions
- D.6 Complete Hull
- D.7 Accommodations

SECTION E - RUDDER AND TILLER

- E.1 Manufacturers
- E.2 Measurement and Certification
- E.3 Design
- E.4 Additional Rules

SECTION F - RIG

- F.1 Manufacturers
- F.2 Measurement and Certification
- F.3 Mast
- F.4 Boom
- F.5 Spinnaker Pole
- F.6 Standing Rig
- F.7 Running Rig
- F.8 Additional Rules

SECTION G - SAILS

- G.1 Sailmakers
- G.2 Measurement and Certification
- G.3 Mainsail
- G.4 Foresail Genoa
- G.5 Foresail Jib
- G.6 Spinnaker
- G.7 Identification Marks

SECTION H - DRAWINGS

SECTION A - FUNDAMENTAL RULES

- A.1 One Design Clause
- A.1.1 Anything not specifically permitted by these class rules is PROHIBITED.
- A.2 Abbreviations
- SSF Swedish Sailing Federation
ISAF International Sailing Federation
MNA ISAF Member National Authority
NCA National IF-boat association
MF Measurement Form
MC Measurement Certificate
RRS Racing Rules of Sailing
IFRA Nordic IF-boat Racing Association, an organisation for co-operation between the NCAs in Denmark, Norway and Sweden
- A.3 Authority
- A.3.1 The highest authority for interpretation of these class rules is the SSF, which, via the Swedish IF-boat Association, shall co-operate with the IFRA in all class rule matters.
- A.3.2 Neither an MNA, through an MNA recognised measurer, the NCA or the IFRA is under any legal responsibility in respect of these class rules or measurements performed, and no claims arising from those will be accepted.
- A.3.3 These class rules shall be approved by the corresponding MNA to be valid in a country.
- A.4 Language
- A.4.1 The official language of the class is Swedish, and in case of dispute over translations the Swedish text shall prevail.
- A.4.2 The word "shall" is mandatory and the word "may" is permissible.
- A.5 Class Rules and their Interpretations
- A.5.1 Whenever the words "class rules" are used in these rules, they shall be understood as including the approved drawings and the MF.
- A.5.2 In case of any discrepancy between the text of the class rules, approved drawings and building specifications, in the first instance the text shall prevail. Secondly the matter shall be referred to the SSF.
- A.5.3 All interpretations shall be made by the SSF, which shall ask the IFRA for advise. The only exception is the interpretation at an event, made by a Racing Authority regarding a measurement protest. Such interpretations shall be forwarded to the SSF as soon as possible.
- A.6 ISAF Rules
- A.6.1 These **class rules** shall be read in conjunction with the ERS and measurements shall be taken in accordance with these unless specified. 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 RRS.

SECTION B - ORGANISATION

- B.1 Administration of the Class
 - B.1.1 The MNA may delegate its functions, as stated in these class rules, to a NCA.
 - B.1.2 In countries, where there is no MNA, its functions as stated in these class rules, shall be carried out by the Swedish IF-boat Association, which may delegate the administration to the NCA.
- B.2 Sail Numbers
 - B.2.1 Sail numbers shall be issued by the MNA in co-operation with the NCA.
 - B.2.2 The sail number shall be permanently marked on the mast bulkhead.
- B.3 Measurers
 - B.3.1 A measurer shall be recognised by his or her MNA.
 - B.3.2 A measurer shall not measure any part owned, designed or built by himself, or in which he is an interested party or has a vested interest, except where permitted by these class rules.
 - B.3.3 If a measurer is in any doubt as to conformity with the class rules, he shall consult the SSF before signing an MF or attaching an official certification mark.
- B.4 Measurement Certificate
 - B.4.1 In order to receive an MC , the owner shall send a completed MF to the MNA together with the registration fee, if any. The completed MF shall be signed by a recognised measurer who fulfils paragraph B.3.
 - B.4.2 Upon receipt of a correctly completed and signed MF, the MNA may issue an MC. A copy of the MC shall be kept by the MNA.
 - B.4.3 Notwithstanding anything contained in these class rules, the MNA may withdraw an MC. Upon request an owner is obliged to return the MC to the MNA.
- B.5 Change of Ownership
 - B.5.1 Change of ownership invalidates the MC, but it is not necessary to re-measure the boat. The new owner shall apply to the MNA for a new MC, returning the old MC together with the re-registration fee, if any. Then a new MC may be issued to the new owner.
- B.6 Amendments to Class Rules
 - B.6.1 Amendments or additions to the class rules shall be proposed to IFRA by a NCA. After adoption of the proposal by the IFRA, the amendments or additions shall be passed to SSF for approval, and then the decision is taken in the different NCAs respectively.
 - B.6.2 To be valid in a country in which the IF-boat is adopted as a national One design Class, amendments and additions to these class rules shall be approved by the corresponding MNA.

SECTION C - CONDITIONS FOR RACING

- C.1 Equipment
 - C.1.1 GENERAL
Only such equipment that is clearly permitted in these class rules may be used.

C.1.2 MANDATORY EQUIPMENT

- .a 1 anchor with a minimum weight of 7.5 kg
- .b 1 anchor rope, a minimum length of 30m and with a minimum diameter of 12mm or equivalent properties and of sufficient strength for a sailboat of 2.3 tonnes.
- .c 1 paddle, length about 1200 mm.
- .d 2 towing ropes, each with the minimum length of 10 m and a minimum diameter of 10 mm, strong enough for a sailboat of 2.3 tons.
- .e Life jackets for all crew members.
- .f 1 bucket or hand operated bilge pump.
- .g 1 stove with one- or two burners.
- .h 1 cutlery box, size about 250 x 300 mm.
- .i Cushions for the berths. The cushions are to be designed for use on board an IF-boat.

C.1.3 OPTIONAL INSTRUMENTS

- .a Radio receivers
- .b Binoculars
- .c Clocks and watches
- .d Non-electronic wind direction indicator
- .e Magnetic compasses

C.1.4 OTHER OPTIONAL EQUIPMENT

- .a Battery
- .b Tools
- .c Outboard motor
- .d Other loose equipment, e.g. personal equipment, camping equipment etc.

C.1.5 LIMITATIONS

- .a In a One Design "race round the buoys" (Translator's remark: i.e. the rounding marks are movable and the race is directed in the wind direction) not more than 2 mainsails, 2 foresails and 2 spinnakers shall be on board. The two spinnakers shall be clearly different in colour or pattern. Only one spinnaker and one mainsail shall be used in one single race. Maximum 2 sets of sails (= 2 mainsails + 2 foresails + 2 spinnakers) may be brought for measurement and no other sails shall be used during the regatta.
- .b During a "race round the buoys" an optional outboard motor shall not be fitted to the stern.
- .c Any electronic and hydraulic equipment is prohibited.
- .d In handicap races to the DH-rule (Danish Handicap Rule) it is, notwithstanding the provisions of paragraph D.6.5.b, fitted toe straps are not permitted.

C.1.6 ADDITIONAL RULES

- .a In a One Design "race round the buoys" no other equipment is allowed to be used except of equipment mentioned in paragraphs C.1.2 to C.1.5 . If there is other equipment on board, it shall be made inoperable or out of function in a way that cannot be questioned.
- .b For other types of racing (distance, passage and/or handicap racing) the use of equipment and sails are only regulated by the racing instructions, the regulations of the current handicap rule and the RRS.
- .c Equipment and sails may be stored where desired.
- .d Mobile telephone is allowed to be brought on board

- C.2 Total Weight
 - C.2.1 The total weight of the boat including accommodation and permanent fittings but excluding sails, towing and anchoring equipment, sheets and loose fittings shall not be less than 2150 kg. Corrector weights, if any, shall be permanently fitted onto the underside of the deck with 2/3 of the total weight forward and 1/3 aft of the cabin bulkhead, situated at the forward end of the cockpit.
- C.3 Sails and Setting of Sails
 - C.3.1 When the mainsail is set, its highest visible point at the head shall be lower than the lower edge of the mast upper spar band, and the leech or its extension shall cut the upper side of the boom inside the inner edge of the boom spar band.
 - C.3.2 When a furling foresail is set, it is to be used either wholly rolled out or wholly rolled in.
 - C.3.3 A foresail that is not a spinnaker or furling sail shall be attached to the forestay along the length of the luff by only hooks or thin bands. A profile or similar device may not be used for attaching the sail to the forestay.
 - C.3.4 A mainsail shall not be used with a loose foot.
 - C.3.5 Only such sails that have been fundamentally measured as per rule B.3.1 or G.2.2 may be used when racing.
 - C.3.6 If the NCA has given its written approval, the number on sails are permitted to be different from that what is stated in B.2.2.
- C.4 Crew
 - C.4.1 In a One Design "course race" the crew shall consist of 2 or 3 persons. The number of crew shall remain the same throughout a regatta.
 - C.4.2 For any other type of race the number of crew is optional.
- C.5 Advertising
 - C.5.1 Advertising as per RRS is permitted.
- C.6 Certificate
 - C.6.1 The boat shall have an MC, issued in the name of the owner.
- C.7 Membership
 - C.7.1 In championship races the owner or the owner's representative shall be a member of the NCA, or if there is no NCA in the country, a member of the Swedish IF-boat Association.

SECTION D - HULL

- D.1 Builders
 - D.1.1 A boat builder shall be licensed by the SSF.
- D.2 Measurement and Certification
 - D.2.1

- .a The hull and permanently fitted accommodation shall be in accordance with the rules in force at the time for the first fundamental measurement of the boat with the exception that amendments and repairs shall be in accordance with current rules.
 - .b The hull form shall not be altered in any case, and intentional variations within the given tolerances are prohibited.
 - .c The hull form is checked by official hull templates or by a hull measuring machine. The NCA or the MNA may order check dimensions of hull, deck and rudder.
- D.2.2 If a hull has been significantly changed by rebuilding or repair, the measurement certificate automatically becomes invalid. A new measurement certificate may be issued after fundamental re-measurement of the relevant parts.
- D.3 Hull Shell
- D.3.1 MATERIAL
Manually laminated Glass-fibre Reinforced Polyester (GRP).
- D.3.2 DIMENSIONS
- .a See drawings 1223A, 1223B and 1460
 - .b Tolerances:

Length over all	+/- 10 mm
Design Water Line	+/- 10 mm
Beam section 1 -- 16	+/- 1 %
Freeboard	+/- 1 %
Draft	+/- 1 %
Radius grater than 25mm	+/- 2 mm
Radius less than 25 mm	+/- 1 mm
- D.3.3 WEIGHT
See drawing 1460

- D.4 Deck
 - D.4.1 MATERIAL
Water resistant marine plywood as sandwich material in reinforcements.
 - D.4.2 DIMENSIONS
See drawings 1223A, 1229B and 1460
 - D.4.3 WEIGHT
See drawing 1460
- D.5 Hull Additions
 - D.5.1 BULKHEADS
See drawing 1460
 - D.5.2 BALLAST KEEL
 - .a Cast iron built into the hull.
 - .b The weight of the cast iron shall be 1250 kg +/- 10 kg.
 - .c The dimensions shall be in accordance with an official mould. See drawings 1460, 1223A and 1223B.
- D.6 Complete Hull
 - D.6.1 MOTOR WELL
The motor well is optional. If the motor well is missing, a corrector weight of minimum 3.75 kg shall be fitted onto the lazarette floor at the place corresponding to centre of the motor well, i.e. 200 mm from centre line to port side and 700 mm forward the centre of the stern at deck height.
 - D.6.2 COCKPIT
The cockpit is to be self-draining.
 - D.6.3 REINFORCEMENTS
 - .a The reinforcements at the stem, the berth fittings, the forestay fitting, for fitting the accommodation and inside the shell and the deck shall be in accordance with drawing 1460.
 - .b Reinforcements at the chain plates, so called "knees", constructed as per drawing 1965-2, are permitted. They shall be fundamentally measured and a new MC including a special note shall be issued.
 - D.6.4 FITTINGS
Fittings are optional with the exception that the stem plate and the stem rail is always to be present.

D.6.5 OTHERS

- .a Hand holds on deck are permitted
- .b Toe straps may be used. They shall be fitted to the inside of the cockpit and shall not be possible for them to be stretched outside the cockpit coaming
- .c No other equipment than in position .b above shall be used for keeping the weight of the crew outside the boat.
- .d Epoxy plastics and vinyl-esters may be used as glue, for the purposes of repair and for exterior hull layer.
- .e Filling up or grinding down the outboard parts of the self drain hull fittings is prohibited, as well as mounting of "flaps" over the slot between rudder and hull.

D.7 Accommodations

D.7.1 MINIMUM STANDARD ACCOMMODATIONS

- .a The minimum standard for accommodations is as follows:
 - 4 solid berths. Length each min.1800 mm. Maximum width min. 600 mm.
 - 1 galley, length min 575 mm.
 - 1 hanging locker with door or solid front, length min 350 mm.
 - 4 lockers under the side decks. Total length min 2000 mm, height min 200 mm.
 - Floor in the cabin and in the space underneath the cockpit.
- .b Materials for the accommodations shall be homogenous wood or water resistant marine plywood, min thickness 6 mm. Materials for decor and the exterior layer are optional.
- .c Any accommodations exceeding the minimum, specified in position .a above is permitted.

D.7.2 MODIFIED STANDARD ACCOMMODATIONS

- a. The accommodations as per D.7.1.a may be modified, but the modification shall not be made with the purpose of changing the boat's weight, weight distribution or change the boat's character of a cruiser/racer, and shall not considerably detract from the possibility for a racing crew to live on board.
- .b All modifications of the minimum accommodations in accordance with D.7.1.a shall be approved by the NCA. The modification shall be described on an MF, which shall be signed by an official measurer. A new MC shall be issued by the MNA, containing a short description of the modifications made.

SECTION E - RUDDER AND TILLER

E.1 Manufacturers

E.1.1 The choice of a rudder manufacturer is optional.

E.2 Measurement and Certification

E.2.1 The rudder shall be in accordance with the rules in force at the time for the first fundamental measurement of the boat with the exception that amendments and repairs shall be in accordance with current rules.

E.2.2 Official moulds for rudder manufacturing shall be fundamentally measured by an official measurer and shall be approved by the IFRA.

E.2.3 A rudder shall only be fundamentally measured by an official measurer.

E.2.4 An official certification mark shall, where it is applicable, be applied, showing the date for the fundamental measurement.

E.2.5 A rudder, which has been significantly modified or repaired, shall be re-measured, and the measurer shall apply a new official certification mark, which shows the new date for fundamental measurement.

E.3 Design

E.3.1 MATERIAL AND CONSTRUCTION

.a The rudder shall be made from GRP sandwich. The filling material shall be divinycell, termanto or similar, or marine plywood. The rudder shall not include any greater empty hollows.

.b The tiller shall be made from homogenous or laminated wood.

E.3.2 DIMENSIONS

.a See drawing 1231-2. The radius of the trailing edge shall not, at any position, be less than 5 mm. The tolerance for the rudder's width dimensions are +/- 5 mm. The axis of the tiller shall be placed 2720 +/- 25 mm above the lower edge of the rudder.

.b Rudders shall be manufactured in an official mould, that has been previously verified by an official measurer and approved by the IFRA. A rudder manufactured in such a way shall be identified by markings inside the mould and on the rudder.

.c Rudders may also be manufactured in other ways than described i .b, but in accordance with drawing and material description on drawing 1231-2. In such cases the rudder shall be fundamentally measured by an official measurer, and the measurer shall apply an official certification mark or stamp, that shows the date for the fundamental measurement.

.d The dimensions of the tiller are optional.

E.3.3 FITTINGS

.a The rudder pintails shall be made from brass, bronze or steel. Their positions shall be adjusted to fit the gudgeons mounted to the boat.

.b The rudder plates shall be made from steel or brass. The dimensions of the plates are optional.

.c The tiller extension is optional.

E.3.4 WEIGHT
The weight including permanent fittings but excluding tiller shall be minimum 22.0 kg.

E.4 Additional Rules

E.4.1 Epoxy plastics and vinyl-esters may be used as glue, for the purpose of repair and for the exterior layer.

SECTION F - RIG

F.1 Manufacturers

F.1.1 The choice of manufacturer for spars and rig is optional.

F.2 Measurement and Certification

F.2.1 The spars and rig shall be in accordance with the rules in force at the time for the first fundamental measurement of the boat with the exception that amendments and repairs shall be in accordance with current rules.

F.2.2 A manufacturer may be issued a certification license from the IFRA.

F.2.3 A manufacturer holding a certification license is allowed to fundamentally measure own manufactured spars. Other spars shall be fundamentally measured by an official measurer.

F.2.4 On the mast and the boom there shall be applied the manufacturer's mark and serial number, alternatively an official measurers sticker, showing the date for the fundamental measurement

F.2.5 Significantly modified or repaired spars shall be re-measured, and the measurer shall apply a new official certification mark, which shows the new date for fundamental measurement.

F.2.7 Existing spar bands shall be well contrasting against the spar and have minimum width of 20 mm.

F.3 Mast

F.3.1 MATERIAL
Aluminium alloy

F.3.2 CONSTRUCTION

- .a The cross section shape shall be oval or drop formed.
- .b The mast shall have a permanent track for the luff of the mainsail. The track shall be a part of the mast section. An external sail track is only permitted for original masts on older boats (year of building 1967).
- .c The cross section shape shall be the same along the entire length of the mast.
- .d Permanently bent or rotating masts are prohibited, but due to distortion a curvature between the upper and lower spar bands of max. 25 mm is permitted

.e	Dimensions	Min mm	Max mm
	Transverse cross section	75	92
	Longitudinal cross section	120	127
	The upper edge of the lower Spar band above the coach roof	695	705
	The lower edge of the middle spar band above the upper edge of the lower spar band	----	7160
	The lower edge of the upper spar band above the upper edge of the lower spar band	----	8750
	Spinnaker hoist height above the lower edge of the middle spar band	----	470
	Extension of the permanent fitting for the spinnaker halyard block forward the fore edge of the mast	----	50
	The height of the fitting for the spinnaker pole above the coach roof 1)	----	1540

1) The dimension is to be measured to the centre of the fitting

F.3.3 FITTINGS

- .a There shall be a permanent stop preventing the boom from being positioned in such a way that its upper edge is below the upper edge of the lower spar band.
- .b A rail for a movable fitting for the spinnaker pole is permitted, but if it is fitted, there shall be a permanent stop preventing the fitting from moving higher than permissible.

F.3.4 WEIGHTS AND CENTRES OF GRAVITY

- .a The spar weight shall be minimum 2.2 kg/m
- .b The total weight including all normal permanent fittings, excluding standing and running rigging shall be minimum 23.0 kg, and the centre of gravity position shall be minimum 3500 mm above the upper edge of the lower spar band.

F.3.5 POSITION

- .a The mast shall stand on the centre line and on a permanent fitting. The fitting shall have sufficient bearing area and stiffness so that the compression of the mast will not cause any local deformation of the coach roof.

- .b The distance from the most forward point of the stem to the intersection point between the coach roof and the line along the forward edge of the mast.

Min mm	Max mm
2935	2955

(The extreme forward point is defined as the forward point of an undamaged stem fitting)

F.4 Boom

F.4.1 MATERIAL
Aluminium alloy

F.4.2 CONSTRUCTION

- .a The shape of the cross section is optional.
- .b The boom shall have a permanent track for the foot of the mainsail.
- .c The cross section shall be the same along the entire length of the boom.
- .d A permanently bent boom is prohibited, but due to form change a curvature between the fore end of the boom and the boom spar band of max. 15 mm is permitted

- .e Dimensions

	Min mm	Max mm
Transverse	55	70
Vertical	75	95
The forward edge of the spar band from the aft edge of the mast ----		3400

F.4.3 FITTINGS

Optional except that a solid boom vang with a function to lift the boom and a roller reef is prohibited.

F.4.5 WEIGHTS

- .a The spar weight shall be minimum 1.30 kg/m.
- .b The total weight including all normal permanent fittings shall be minimum 5.0 kg.

F.5 Spinnaker Pole

- F.5.1 MATERIAL
Aluminium alloy , steel or wood.
- F.5.2 DIMENSIONS
- .a With its end fitting attached to the mast and when extended maximally in any direction, the outermost point of the spinnaker pole is to be max. 2550 mm from the line along the fore edge of the mast.
- .b The spar cross section dimensions and section shape are optional.
- F.5.3 FITTINGS
Optional
- F.5.5 WEIGHT
Optional
- F.6 Standing Rigging
- F.6.1 MATERIAL
- .a Steel wire for shrouds and stays.
- .b Steel or aluminium for spreaders.
- F.6.2 CONSTRUCTION
- .a The standing rigging shall consist of:
- 1 pair of upper shrouds, min 5 mm diameter
 - 1 pair of lower shrouds, min 4 mm diameter
 - 1 permanent forestay, min 5 mm diameter
 - 1 adjustable backstay, min 3 mm diameter
 - 1 pair of spreaders of swinging type, swept backwards

.b Dimensions

Mountings onto the mast above the upper edge of the lower spar band:

	Min mm	Max mm
Spreaders	3125	3175
Upper shrouds	7125	7225
Lower shrouds	3038	3138

The extension of the forestay shall intersect the mast below the lower edge of the middle spar band.

(All dimensions shall be measured in direction along the mast to the intersection point between the mast and a line through the centre of stay, shroud and spreader)

Mountings onto the deck in longitudinal direction

	Min mm	Max mm
Fortriangle Base	----	2565
Upper shrouds (in positions marked for the purpose) aft of the line along the forward edge of the mast	445	475
Lower shrouds (in positions marked for the purpose) aft of the line along the forward edge of the mast	345	375
The distance between the upper and lower shroud fittings	90	110

(All dimensions are projections on the centre line of the boat and are referred to an imaginary line through the centre of the fitting respectively)

Mountings onto the deck in transverse direction:

- The foresail fitting shall be placed on the centre line of the boat
- The fittings for the upper shrouds shall be placed in positions marked for the purpose just inside the toe rail.
- The fittings for the lower shrouds shall be placed in positions marked for the purpose at 35 mm +/- 5mm inside the rail.

	Min mm	Max mm
The length of the spreaders from the side of the mast	755	765
The distance from the imaginary line between the spreader shroud fittings and the back edge of the mast and with:		
-both spreaders locked in their forward position	80	170
-both spreaders locked in their aft position	260	400

F.7 Running Rigging

F.7.1 MATERIAL
Optional

F.7.2 DIMENSIONS
Optional

F.8 Additional Rules

F.8.1 Devices for the purpose of sail trimming purpose and fittings for standing and running rigging are optional.

F.8.2 Deck and hull penetrations for standing and running rigging are only permitted for furling jib fitting, foresail cunningham and backstay.

F.8.3 Adjustments and trimming of the rig shall only be performed by use of turnbuckle for shroud and forestay, by use of pulley and tackle for backstay and use of kicking strap/boom vang.

F.8.4 A mast support pillar below the deck is only permitted for older boats (year of building 1967) which do not have the mast bulkhead and the forward hatch in the original shape.

SECTION G - SAILS

- G.1 Sailmakers
 - G.1.1 The choice of sailmaker is optional.
- G.2 Measurement and Certification
 - G.2.1 A sail shall be in accordance with the rules in force at the time for the first fundamental measurement except that modified sails shall be in accordance with current rules.
 - G.2.2 A sailmaker holding a certification license from his MNA is allowed to fundamentally measure sails manufactured by himself and is in this respect equalised with an official measurer. Fundamental measurement of other sails shall be performed by an official measurer.
 - G.2.3 On Sails there shall, at the head or the tack, be attached a certification mark in accordance with the regulations of the MNA. The date for the fundamental measurement and the signature of the official measurer, alternatively the sailmaker (who fulfils the requirements of G.2.2) shall be written on or near the certification mark.
 - G.2.4 The sailmaker shall, at the head or the tack, in a non-removable way, write the weight in g/m² of the body of the sail and date and sign the sail.
 - G.2.5 A sail, which is significantly modified shall be re-measured, and the official measurer or the sailmaker (who fulfils the requirements of G.2.2) shall apply a new certification mark on the sail, which shows the new date for fundamental measurement.
- G.3 Mainsail
 - G.3.1 CONSTRUCTION.
 - .a The construction shall be soft sail, single ply sail.
 - .b The body of the sail shall only consist of woven ply of the same ply weight except for an area within a distance of max.250 mm from the foot, which may have different ply weight than the rest of the sail. The ply fibres shall be of polyester.
 - .c The sail shall have 4 batten pockets. The batten pockets shall intersect the leech of the sail in approximately equal parts.
 - .d The following are permitted: stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye/ pulley, batten pocket elastic, batten pocket end caps, batten pocket "burr" bands, mast and boom slides, leech line with cleat, windows, sailmaker label, guarantee label, royalty label, sail button, tell tales, reef eyes, sail shape indicator stripes.

G.3.2 DIMENSIONS

	Minimum	Maximum
Leech length	-----	9330 mm
Quarter width	-----	free
Half width	-----	2020 mm
Three-quarter width	-----	1120 mm
Top width	-----	140 mm
Headboard width	-----	120 mm
Weight of the ply of the body of the sail *)	250 g/m ²	-----
Primary reinforcements	-----	600 mm
Secondary reinforcements	-----	free
Tabling widths	-----	free
Seam widths	-----	free
Number of windows	-----	2
Window area	-----	0,65 m ² /each
Distance from window to sail edges	150 mm	-----
Batten pocket lengths inside :		
-uppermost batten pocket (may be "long")	-----	free
-intermediate batten pockets	-----	1050 mm
-lowermost batten pocket	-----	800 mm
Batten pocket widths inside	-----	70 mm

*) Within the area 250 mm from the foot the weight of the ply is optional.

G.4 Foresail Genoa

G.4.1 CONSTRUCTION

- .a The construction shall be soft sail, single ply sail .
- .b The body of the sail shall only consist of woven ply of the same ply weight. The ply fibres shall be of polyester.
- .c The sail shall not have batten pockets.
- .d The following are permitted: stitching, glues, tapes, corner eyes, forestay hanks or bands, leech line with cleat, windows, sailmaker label, guarantee label, royalty label, sail button, tell tales, Cunningham eye, sail shape indicator stripes.
- .e A convex leech is prohibited.

G.4.2 DIMENSIONS

	Maximum	Minimum
Luff length	7600 mm	7800 mm
Leech length	-----	free
Foot length	3800 mm	3900 mm
Foot median	-----	free
Top width	-----	50 mm
Weight of the ply of the body of the sail	190 g/m ²	----
Primary reinforcements	-----	600 mm
Secondary reinforcements	-----	free
Tabling widths	-----	free
Seam widths	-----	free
Number of windows	-----	2
Window area -	----	0,65 m ² /each
Distance from window to sail edges	150 mm	-----

G.5 Foresail jib

G.5.1 CONSTRUCTION

- .a The construction shall be soft sail, single ply sail .
- .b The body of the sail shall only consist of woven ply of the same ply weight. The ply fibres shall be of polyester.
- .c The sail may have 3 batten pockets. The batten pockets shall intersect the leech of the sail in approximately equal parts.
- .d The following are permitted: stitching, glues, tapes, corner eyes, forestay hanks, batten pocket elastic, batten pocket end caps, batten pocket "burr" bands, leech line with cleat, windows, sailmaker label, guarantee label, royalty label, sail button, tell tales, Cunningham eye, sail shape indicator stripes.
- .e A convex leech is permitted.

G.5.2 DIMENSIONS

Maximum		Minimum
Luff length	-----	7800 mm
Leech length	-----	7150 mm
Foot length	-----	2820 mm
Half width	-----	1550 mm
Foot median	-----	free
Top with	-----	50 mm
Weight of the ply of the body of the sail	240 g/m ²	-----
Primary reinforcements	-----	free
Secondary reinforcements	-----	free
Tabling widths	-----	free
Seam widths	-----	free
Number of windows	-----	2
Window area	-----	0,65 m ² /each
Distance from window to sail edges	150 mm	-----
Batten pocket lengths inside	350 mm	-----
Batten pocket widths inside	70 mm	----

G.6 Spinnaker

G.6.1 CONSTRUCTION

- .a The construction shall be soft sail, single ply sail .
- .b The body of the sail shall only consist of woven ply of the same ply weight. The ply fibres shall be of polyester of polyamide.
- .c The following are permitted: stitching, glues, tapes, corner eyes, recovery line eyes, sailmaker label, guarantee label, royalty label, sail button, tell tales, sail shape indicator stripes.

G.6.2	DIMENSIONS		Minimum
	Maximum		
Leech length		----	8270 mm
Foot length		----	4550 mm
Foot median		----	free
Half width		----	4540 mm
Weight of the ply of the body of the sail		35 g/m ²	----
Primary reinforcements		----	free
Secondary reinforcements		----	free
Tabling widths		----	free
Seam widths		----	free

G.7 Identification Marks

- G.7.1 The class insignia, sail numbers and national letters shall be in accordance with the RRS except when others is mentioned
- G.7.2 The class insignia shall conform to dimensions and requirements which appear on drawing 1996.
- G.7.3 National letters shall be displayed on the mainsail and spinnaker.
- G.7.4 National letters and sail number shall not be displayed on the Genoa foresail.

SECTION H - DRAWINGS

H.1 Enclosed Drawings

Drawing No	Item	Dated
1223A	Hull drawing	15/6 1966
1229B	Deck drawing	19/8 1966
1231-2	Rudder	10/10 1966
1996	Drawing of Class Insignia	10/10 1996
1460	Glass fibre armouring and deck reinforcement	11/11 1979
1965-2	"Knee" reinforcement at chainplate	10/10 1996

H.2 Drawings kept by IFRA

Drawing No	Item	Dated
1223B	Hull offsets table	20/6 1966
1224	Keel drawing	10/8 1966
1228	Dimensional drawing of keel section	28/6 1966
1230	Deck section	9/8 1966
1324-1	Fore triangle base dimensions	3/3 1979
1328-4	Sail drawing	9/1 1979
1423-1	Rig drawing	3/3 1979