XYZ CLASS RULES 200X

Boat image

Closed class rules for a measurement controlled class. It also provides the basis for a new template in development for Closed Class Rules for manufacturer controlled class

Please refer to the **Guide to Standard Class Rules**when using this document

This version has been updated to reflect the changes to the ERS 2009–20012.

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INDEX

		C.10	Sails	X
PAR	Γ I – ADMINISTRATION	Section	on D– Hull	
Section	on A – General	D.1	Parts	X
A.1	Language x	D.2	General	X
A.2	Abbreviations x	D.3	Hull Shell	
A.3	Authorities x	D.4	Deck	X
A.4	Administration of the Class x	D.5	Buoyancy Tanks	
A.5	ISAF Rules x	D.6	Gunwale Rubbing Strakes	
A.6	Class Rules Variations x	D.7	Bulkheads	
A.7	Class Rules Amendments x	D.8	Thwarts	X
A.8	Class Rules Interpretation x	D.9	Assembled Hull	
A.9	International Class Fee and	Section	on E – Hull Appendages	
	ISAF Building Plaque x	E.1	Parts	X
A.10		E.2	General	X
	Hull Certification x	E.3	Keel/Centreboard	
	Initial Hull Certification x	E.4	Rudder Blade, Rudder Stock	
	Validity of Certificate x		and Tiller	X
	Hull Re-Certification x	Section	on F – Rig	
A.15	Retention of Certification	F.1	Parts	X
	Documentation x	F.2	General	
	on B – Boat Eligibility	F.3	Mast	
B.1	Class Rules and Certification x	F.4	Boom	
B.2	Flotation Check x	F.5	Spinnaker Pole	
B.3	Class Association Sticker x	F.6	Bowsprit	
DADE		F.7	Standing Rigging	
	Γ II – REQUIREMENTS AND TATIONS	F.8	Running Rigging	
			on G – Sails	
	on C – Conditions for Racing	G.1	Parts	v
C.1	General x	G.2	General	
C.2	Crewx	G.2 G.3	Mainsail	
C.3	Personal Equipment x	G.4	Headsail	
C.4	Advertising x	G.5	Gennaker	
C.5	Portable Equipment x	G.6	Spinnaker	
C.6	Boat x	0.0	Spiniakei	Λ
C.7	Hull x	PART	Γ III – APPENDICES	
C.8	Hull Appendages x			v
C.9	Rig x		•••••	Λ

INTRODUCTION

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

XYZ hulls, hull appendages, rigs and sails are measurement/manufacturing controlled.

XYZ hulls, hull appendages, rigs and sails shall only be manufactured by XXX – in the class rules referred to as licensed manufacturers. Equipment is required to comply with the International XYZ Building Specification and is subject to an ISAF approved manufacturing control system.

XYZ hulls, hull appendages, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Owners and crews should be aware that compliance with rules in Section C is NOT checked as part of the certification process.

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

Note: Where the class permits IHC it should be mentioned here which items may be produced under IHC.

PLEASE REMEMBER:

THESE RULES ARE **CLOSED CLASS RULES** WHERE IF IT DOES NOT SPECIFICALLY SAY THAT YOU MAY – THEN YOU SHALL NOT.

COMPONENTS, AND THEIR USE, ARE DEFINED BY THEIR DESCRIPTION.

PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

- A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
- A.1.2 The word "shall" is mandatory and the word "may" is permissive.
- A.1.3 Except where used in headings, when a term is printed in "**bold**" the definition in the ERS applies and when a term is printed in "*italics*" the definition in the RRS applies.

A.2 ABBREVIATIONS

- A.2.1 ISAF International Sailing Federation
 - MNA ISAF Member National Authority
 - ICA International ... Class Association
 - NCA National Class Association
 - ERS Equipment Rules of Sailing
 - RRS Racing Rules of Sailing
 - OSR Offshore Special Regulations

A.3 AUTHORITIES

- A.3.1 The international authority of the class is the ISAF which shall co-operate with the ICA in all matters concerning these **class rules**.
- A.3.2 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so on the request of the ISAF.

A.4 ADMINISTRATION OF THE CLASS

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

A.5 CLASS RULES CHANGES

A.5.1 At Class Events – see RRS 89.1.d) – ISAF Regulation 26.5(f) applies. At all other events RRS 87 applies.

A.6 CLASS RULES AMENDMENTS

A.6.1 Amendments to these **class rules** are subject to the approval of the ISAF in accordance with the ISAF Regulations.

A.7 CLASS RULES INTERPRETATION

A.7.1 Interpretation of **class rules** shall be made in accordance with the ISAF Regulations.

A.8 INTERNATIONAL CLASS FEE AND ISAF BUILDING PLAQUE

- A.8.1 The licensed hull builder shall pay the International Class Fee.
- A.8.2 ISAF shall, after having received the International Class Fee for the hull, send the ISAF Building Plaque and a measurement form to the licensed hull builder.

A.9 SAIL NUMBERS

- A.9.1 Sail numbers shall be issued by the MNA.
- A.9.2 Sail numbers shall be issued in consecutive order starting at "1".

A.10 HULL CERTIFICATION

- A.10.1 A **certificate** shall record the following information:
 - (a) Class
 - (b) Certification authority
 - (c) Sail number issued by the certification authority
 - (d) Owner
 - (e) Hull identification (See the Guide to Standard Class Rules)
 - (f) Builder/Manufacturers details
 - (g) Date of issue of initial **certificate**
 - (h) Date of issue of certificate

A.11 INITIAL HULL CERTIFICATION

- A.11.1 For a **certificate** to be issued to hull not previously **certified**:
 - (a) **Certification control** shall be carried out by the **official measurer** who shall complete the appropriate documentation.
 - (b) The documentation and **certification** fee, if required, shall be sent to the **certification authority**.
 - (c) Upon receipt of a satisfactorily completed documentation and **certification** fee, if required, the **certification authority** may issue a **certificate**.

A.12 VALIDITY OF CERTIFICATE

- A.12.1 A hull **certificate** becomes invalid upon:
 - (a) the change to any items recorded on the hull **certificate** as required under A.11.
 - (b) the date of expiry,
 - (c) withdrawal by the **certification authority**,
 - (d) the issue of a new **certificate**,

A.13 HULL RE-CERTIFICATION

A.13.1 The **certification authority** may issue a **certificate** to a previously certified **hull**:

- (a) when it is invalidated under A.13.1(a) or (b), after receipt of the old **certificate**, and **certification** fee if required.
- (b) when it is invalidated under A.13.1 (c), at its discretion.
- (c) in other cases, by application of the procedure in A.12.

A.14 RETENTION OF CERTIFICATION DOCUMENTATION

A.14.1 The **certification authority** shall:

- (a) retain the original documentation upon which the current **certificate** is based.
- (b) upon request, transfer this documentation to the new **certification authority** if the hull is exported.

Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

- B.1.1 The boat shall:
 - (a) be in compliance with the **class rules**.
 - (b) have a valid hull **certificate**.
 - (c) have valid **certification marks** as required

B.2 FLOTATION CHECKS

- B.2.1 The hull **certificate** shall carry a satisfactorily flotation check confirmation.
- B.2.2 A race committee may require that a **boat** shall pass a flotation test in accordance with Appendix

B.3 CLASS ASSOCIATION MARKINGS

B.3.1 A valid Class Association Sticker, if required by the NCA or the ICA, shall be affixed to the hull in a conspicuous position.

or

- B.3.1 A valid Class Association Sticker, if required by the NCA or the ICA, shall be affixed to the hull **certificate**.
- B.3.2 Sails shall carry a Class Association Sail Label.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. In case of conflict Section C shall prevail.

The rules in Part II are **closed class rules**. **Certification control** and **equipment inspection** shall be carried out in accordance with the ERS except where varied in this Part.

(The text "The rules in Part II are closed class rules" to be used if all Sections in Part II are closed class rules. Otherwise it should be stated under "Rules" in each section whether the rules in that section are "closed class rules" or "open class rules".)

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

- (a) RRS ... shall not apply.
- (b) RRS ... is/are changed as follows:
- (c) The ERS Part I Use of Equipment shall apply.
- (d) ERS ... is/are changed as follows:

C.2 CREW

C.2.1 LIMITATIONS

- (a) The **crew** shall consist of ... persons.
- (b) No **crew** member shall be substituted during an event of less than ... consecutive days, unless
- (c) Age

(d)

C.2.2 WEIGHTS

	minimum	maximum
The total weight of the crew dressed in underwear	kg	kg

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

(a) The boat shall be equipped with a **personal floatation device** for each crew member to the minimum standard ISO 12402-5 (CE 50 Newtons), or USCG Type III, or AUS PFD 1.

(Blue items need to be checked with the territories)

Or

(a) The boat shall be equipped to the minimum standard ISAF Offshore Committee Special Regulations category IV.

(b)

C.3.2 OPTIONAL

- (a) Hiking harness. The weight shall not exceed ... kg.
- (b) Trapeze harness. The weight shall not exceed ... kg.

(c)

C.3.3 TOTAL WEIGHT

The total weight of worn equipment shall not exceed ... kg.

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance the ISAF Advertising Code. (See ISAF Regulation 20)

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

- (a) FOR USE
 - (1) Safety equipment ...
 - (2) One hand bailer or bucket
 - (3) One anchor of not less than ... kg in weight and with not less than ... m of line of not less than ... mm in diameter

(4)

(b) NOT FOR USE

- (1) Towing rope minimum ... m long of not less than ... mm in diameter.
- (2) One paddle minimum ... mm long and with a blade area of minimum ... m²
- (3) One outboard engine

(4)

C.5.2 OPTIONAL

(a) FOR USE

- (1) Electronic or mechanical timing devices
- (2) One magnetic compass
- (3) Mooring line
- (4) Water Bottle Holder
- (5) Wind Indicators
- (6) etc.

- (b) NOT FOR USE
 - Electronic navigation devices
 - (2) One outboard engine
 - Mobile Telephone (3)
 - (4)

C.6 BOAT

C.6.1MODIFICATIONS, MAINTENANCE AND REPAIR

(a)

C.6.2**DIMENSIONS**

minimum	maximum
mm	mm

C.6.3 **WEIGHT**

	minimum	maximum
The weight of the boat in dry condition	kg	kg

The weight shall be taken excluding sails and all portable equipment as listed in C.5.

C.6.4**CORRECTOR WEIGHTS**

- (a) Corrector weights of ... shall be permanently fastened to ... when the **boat** weight is less than the minimum requirement.
- (b) The total weight of such corrector weights shall not exceed ... kg. See also rules A.16.4 and B.1.1.

(c)

C.6.5**FLOTATION**

- (a) The **hull** shall be fully decked and/or have flotation element(s).
- (b) Fully decked **hulls** shall comply with ISO 11812 and ISO 12216.
- (c) Flotation elements shall comply with ISO 12217-3 Annex C.
- (d) Hulls with air tank(s) as flotation element(s) shall additionally comply with ISO 12217-3 Annex D, by test or calculation, except that the largest air tank shall not be included as a flotation element.

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a)

C.7.2 FITTINGS

- (a) USE
 - (1) Inspection hatch covers and drainage plugs shall be kept in place at all times.

(2)

C.7.3 LIMITATIONS

(a)

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a)

C.8.2 FITTINGS

(a) USE

(1)

C.8.3 LIMITATIONS

(a) Only one **centreboard/keel** and one **rudder** blade shall be used during an event of less than ... consecutive days, except when a **hull appendage** has been lost or damaged beyond repair.

(b)

C.8.4 KEEL/CENTREBOARD

(a) DIMENSIONS

	minimum	maximum
Maximum projection from the bottom of the hull	mm	mm

(b) USE

(1) The **keel** shall be fixed down

(2)

C.8.5 RUDDER

(a) DIMENSIONS

minimum	maximum
mm	mm

- (b) USE
 - (1) The rudder blade shall be in its fully lowered position. However for races sailed in shallow water the sailing instructions may prescribe that this rule shall not apply.

(2)

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a)

C.9.2 FITTINGS

(a) USE

(1)

C.9.3 LIMITATIONS

(a) Only one set of **spars** and **standing rigging** shall be used during an event, except when an item has been lost or damaged, and the race committee has approved the substitution.

(b)

C.9.4 MAST

(a) DIMENSIONS

	minimum	maximum
Intersection of the fore side of the spar and upper surface of the deck to .	mm	mm

(b) USE

(1) The **spar** shall be stepped in the mast step in such a way that the heel shall not capable of moving more than ... mm.

(2)

C.9.5 BOOM

(a) DIMENSIONS

	minimum	maximum
Limit mark width	mm	-
Outer point distance		mm

(b) USE

(1) The intersection of the aft edge of the mast **spar** and the top of the boom **spar**, each extended as necessary, shall not be below the upper

edge of the mast **lower limit mark** when the boom **spar** is at 90° to the mast **spar**.

(2)

C.9.6 SPINNAKER POLE/RETRACTING BOWSPRIT

(a) USE

(1)

C.9.7 STANDING RIGGING

(a) DIMENSIONS

	minimum	maximum
Foretriangle base	mm	mm
Foretriangle/Forestay height	mm	mm

- (b) USE
 - (1) Rigging links and rigging screws shall not be adjusted.
 - (2)

C.9.8 RUNNING RIGGING

- (a) USE
 - (1) The **mainsail sheet** shall be led
 - (2) The headsail **sheet** shall be led
 - (3) The spinnaker sheet and spinnaker guy shall be led
 - (4) The **spinnaker pole** topping lift shall be led
 - (5) The spinnaker pole foreguy shall be led
 - (6) The **bowsprit** setting and retractions lines shall be led
 - (7) The kicking strap shall be led
 - (8) The **mainsail outhaul** shall be led
 - (9) The **mainsail** Cunningham control shall be led
 - (10)

C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Sails shall not be altered in any way except as permitted by these class rules.
- (b) Routine maintenance such as ... is permitted without re-measurement and re-**certification**.
- (c) Battens may be placed in the **batten pockets**
- (d)

C.10.2 LIMITATIONS

- (a) Not more than ... mainsails, ... jibs, ... genoa 1, ... genoa 2, ... gennakers and ... spinnakers shall be carried aboard.
- (b) Not more than ... mainsails, ... jibs, ... genoa 1, ... genoa 2, ... gennakers and ... spinnakers shall be used during an event of less than ... consecutive days, except when a **sail** has been lost or damaged beyond repair.

(c)

C.10.3 MAINSAIL

(a) IDENTIFICATION

The national letters and sail numbers shall comply with the RRS except where prescribed otherwise in these **class rules**.

(Not to be included here if this is covered in Section G and thereby checked in connection with certification control)

(b) USE

- (1) The **sail** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** whilst afloat.
- (2) 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 **upper limit mark**. The intersection of the **leech** and the top of the boom **spar**, each extended as necessary, shall not be behind the fore side of the boom **outer limit mark**.
- (3) **Luff** and **foot** bolt ropes shall be in the **spar** grooves or tracks.

(4)

C.10.4 JIB

(a) USE

(1)

C.10.5 GENOA

(a) IDENTIFICATION

The sail number shall comply with the RRS except where prescribed otherwise in these **class rules**.

(Not to be included here if this is covered in Section G and thereby checked at certification control. Use only when the genoa can overlap the mast as described in the RRS.)

(b) USE

(1)

C.10.6 GENNAKER

(a) IDENTIFICATION

The sail numbers shall comply with the RRS except where prescribed otherwise in these **class rules**.

(Not to be included here if this is covered in Section G and thereby checked at certification control. Use only when the gennaker can overlap the mast as described in the RRS.)

(b) USE

(1)

C.10.6 SPINNAKER

(a) IDENTIFICATION

The sail numbers shall comply with the RRS except where prescribed otherwise in these **class rules**.

(Not to be included here if this is covered in Section G and thereby checked at certification control.)

(b) USE

(1)

Section D - Hull

D.1 PARTS

D.1.1 MANDATORY

- (a) Hull shell
- (b) Deck
- (c) Buoyancy Tanks
- (d) Gunwale Rubbing Strakes
- (e) Bulkheads
- (f) Thwarts

(g)

D.1.2 OPTIONAL

- (a) Bulkheads
- (b) Thwarts

(c)

D.2 GENERAL

D.2.1 RULES

(a) The **hull** shall comply with the **class rules** in force at the time of initial **certification.**

(b)

D.2.2 CERTIFICATION

See Rule A.13.

D.2.3 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The hull shell, deck, bulkheads, double bottom. ... and ... shall not be altered in any way except as permitted by these **class rules**.

- (b) Holes not bigger than necessary for the installation fittings and passage of lines may be made in the
- (c) Routine maintenance such as painting and polishing is permitted without re-measurement and re-**certification**.
- (d) If any hull moulding is repaired in any other way than described in D.2.3(c), an **official measurer** shall verify on the **certificate** that the external shape is the same as before the repair and that no substantial stiffness, or other, advantage has been gained as a result of the repair. The **official measurer** shall also describe the details of the repair on the **certificate**.

D.2.4 DEFINITIONS

(a) HULL DATUM POINT

The **hull datum point** is

(b)

D.2.5 IDENTIFICATION

- (a) The hull shall carry the ISAF Plaque permanently placed
- (b)

D.2.6 BUILDERS

- (a) The hull shall built by a builder licensed by ISAF.
- (b) All moulds shall be approved by ISAF.
- (c)

D.3 HULL SHELL

D.3.1 MATERIALS

- (a) The hull shell shall be built from
- (b)

D.3.2 CONSTRUCTION

(a)

D.4 DECK

D.4.1 MATERIALS

- (a) The deck shall be built from
- (b)

D.4.2 CONSTRUCTION

(a)

D.5 BUOYANCY TANKS

D.5.1 CONSTRUCTION

- (a) Buoyancy equipment shall comprise of
- (b)

D.6 GUNWALE AND RUBBING STRAKES

- D.6.1 MATERIALS
 - (a) The rubbing strakes shall be
 - (b)
- D.6.2 CONSTRUCTION
 - (a) The rubbing strake shall run unbroken on each gunwale.
 - (b)

D.7 BULKHEADS

- D.7.1 MATERIALS
 - (a)
- D.7.2 CONSTRUCTION
 - (a)

D.8 THWARTS

- D.8.1 MATERIALS
 - (a)
- D.8.2 CONSTRUCTION
 - (a)

D.9 ASSEMBLED HULL

- D.9.1 FITTINGS
 - (a) MANDATORY

The following fittings shall be positioned in accordance with the measurement diagram:

- (1) Stemhead fitting
- (2) Forestay fitting
- (3) Shroud plates
- (4) Headsail tracks
- (5) Mainsheet track with one traveller
- (6) Mast step
- (7)

(b) OPTIONAL

- (1) Halyard winches or tensioners
- (2) Mainsail sheet blocks, fairleads and cleats
- (3) Mainsail Cunningham blocks, fairleads and cleats
- (4) Maximum ... headsail sheet winches
- (5) Headsail sheet blocks, fairleads and cleats
- (6) Headsail Cunningham blocks, fairleads and cleats
- (7) Headsail Barber hauler fairleads, blocks and cleats

- (8) Spinnaker sheet and guy fairleads, blocks and cleats
- (9) Spinnaker Barber hauler fairleads, blocks and cleats
- (10) Tiller lock
- (11) Toe straps not capable of extending outboard
- (12) Hand holds on/in deck
- (13) Stowage clips for paddle(s), spinnaker pole, sail bags and other equipment
- (14) One inspection hole in each buoyancy tank, provided that the watertight integrity of the buoyancy tank is maintained and covers are capable of resisting accidental dislodgement.
- (15) Draining holes in buoyancy tanks, provided that the watertight integrity of the buoyancy tank is maintained and plugs are capable of resisting accidental dislodgement.
- (16) Bilge pump(s) which may discharge through hull shell or deck
- (17) Magnetic compasses
- (18) Echo sounder
- (19) Deck clips for cockpit cover and/or tent
- (20)

D.9.2 DIMENSIONS

The keel line shall be taken as the intersection line from transom to stem of the hull shell and the **hull** centreplane.

The sections shall be taken as vertical, transverse planes at the following positions:

```
Section 1: at ... mm from hull datum point as defined in D.2.3 Section 2: at ... mm from hull datum point as defined in D.2.3 etc
```

The baseline shall be on the centreplane of the **hull** at the at following vertical distances:

at the **hull datum point** as defined in D.2.3: ... mm from the **hull** shell at section ...: ... mm from the **hull** shell

	minimum	maximum
Hull length	mm	mm
Vertical distance from baseline to underside of hull	shell;	
at section		
at section		
Vertical distance from baseline to underside of keel		
at section		
Beam of hull, excluding rubbing strakes and fittings	, at sheerline	;
at section		
at section		
at section		

	minimum	maximum		
Longitudinal distance from hull datum point as defi	Longitudinal distance from hull datum point as defined in D.2.3;			
to intersection of keel trailing edge and	mm	mm		
hull				
to aft point of mast spar hole at deck	mm	mm		
Longitudinal dimension of mast spar hole	mm	mm		
Horizontal distance from centre of forestay	mm	mm		
attachment hole to forward end of hull				
Longitudinal distance from hull datum point as				
defined in D.2.3 to centre of shroud plate holes				
Transverse distance between centres of shroud				
plate holes				
Gunwale rubbing strakes;	ı	1		
depth				
width				
distances from transom and forward end of hull,				
excluding stemhead fitting,				
Overall height of mast step				
Mainsheet track;	ı			
length				
vertical height to top above	mm	mm		
Headsail track length		mm		
Inside diameter of buoyancy tank inspection	mm			
holes				
Inside diameter of buoyancy tank draining holes	mm			

D.9.3 WEIGHTS

	minimum	maximum
Hull Mass	kg	kg

D.9.4 HULL CORRECTOR WEIGHTS

(a)

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) Keel/Centreboard
- (b) Rudder
- (c)

E.1.2 OPTIONAL

- (a) Trim tab
- (b)

E.2 GENERAL

E.2.1 RULES

(a) **Hull appendages** shall comply with the **class rules** in force at the time of **certification**.

(In the case of a keel it is probably preferably to refer to the class rules in force at the time of initial certification of the hull – see E.3.1(a))

(b)

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Hull appendages** shall not be altered in any way except as permitted by these class rules.
- (b) Routine maintenance such as ... is permitted without re-measurement and re-certification.

E.2.3 CERTIFICATION

- (a) The **official measurer** shall **certify hull appendages** and shall sign and date the **certification mark**.
- (b) An MNA may appoint one or more **In-House Official Measurers** to measure and **certify hull appendages** produced by that manufacturer.

(Or place Certification in E.3.2 and E.4.2 as below if different certification procedures should be used for different hull appendages.)

(c)

E.2.3 DEFINITIONS

(a)

E.2.4 MANUFACTURERS

- (a) The **hull appendages** shall be made by manufacturers licensed by ISAF.
- (b)

E.3 KEEL/CENTREBOARD

E.3.1 RULES

(a) The **keel** shall comply with the **class rules** in force at the time of the initial **certification** of the **hull**.

Or

- (a) The **centreboard** shall comply with the **class rules** in force at the time of the **certification**.
- (b)

E.3.2 CERTIFICATION

(a) The **official measurer** shall **certify centreboards** and shall sign and date the **certification mark**.

E.3.3 DEFINITIONS

(a)

E.3.4 MANUFACTURERS

- (a) Manufacturers shall be licensed by the ISAF.
- (b)

E.3.5 MATERIALS

- (a) The **keel/centreboard** shall be of
- (b) The **keel/centreboard** shall be covered with
- (c)

E.3.6 CONSTRUCTION

- (a) The **keel/centreboard** shall be manufactured from a pattern approved by the ISAF.
- (b)

E.3.7 FITTINGS

- (a) MANDATORY
 - (1)
- (b) OPTIONAL

(1)

E.3.8 DIMENSIONS

minimum	maximum
mm	mm

E.3.9 WEIGHTS

	mınımum	maximum

minimum	maximum
kg	kg

E.4 RUDDER BLADE, RUDDER STOCK AND TILLER

E.4.1 RULES

- (a) The **rudder** blade shall comply with the **class rules** in force at the time of **certification**.
- (b)

E.4.2 CERTIFICATION

- (a) The **official measurer** shall **certify rudder** blades and shall sign and date the **certification mark**.
- E.4.3 DEFINITIONS
 - (a)

E.4.4 MANUFACTURERS

- (a) Manufacturers shall be licensed by the ISAF.
- (b)

E.4.5 MATERIALS

- (a) The **rudder** blade shall be of
- (b) The **rudder** stock shall be of
- (c) The tiller shall be of
- (d)

E.4.6 CONSTRUCTION

- (a) The **rudder** blade shall be manufactured in a mould approved by the ISAF.
- (b)

E.4.7 FITTINGS

- (a) MANDATORY
 - (1)
- (b) OPTIONAL
 - (1)

E.4.8 DIMENSIONS

minimum	maximum
mm	mm

E.4.9 WEIGHTS

minimum	maximum
kg	kg

Section F – Rig

F.1 PARTS

- F.1.1 MANDATORY
 - (a) Mast
 - (b) Boom
 - (c) Standing rigging
 - (d) Running rigging
 - (e)

F.1.2 OPTIONAL

- (a) Spinnaker pole
- (b) Bowsprit
- (c)

F.2 GENERAL

F.2.1 RULES

- (a) The **spars** and their fittings shall comply with the **class rules** in force at the time of **certification** of the **spar**.
- (b) The standing and running **rigging** shall comply with the **class rules**.
- (c)

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Spars** shall not be altered in any way except as permitted by these **class** rules.
- (b) Routine maintenance such as ... is permitted without re-measurement and re-certification.

F.2.3 CERTIFICATION

- (a) The **official measurer** shall **certify spars** and shall sign and date the **certification mark.**
- (b) No **certification** of standing and running **rigging** is required.
- (c) An MNA may appoint one or more **In-House Official Measurers** to measure and **certify rigs** produced by that manufacturer.

F.2.4 DEFINITIONS

(a) MAST DATUM POINT

The **mast datum point** is

(b)

F.2.5 MANUFACTURER

- (a) No licence is required.
- (b)

F.3 MAST

F.3.1 MATERIALS

- (a) The **spar** shall be of
- (b)

F.3.2 CONSTRUCTION

- (a) The **spar** extrusion shall include a fixed sail groove or track which may or may not be integral with the **spar** but shall be of the same material.
- (b)

F.3.3 FITTINGS

- (a) MANDATORY
 - (1) Mast head fitting
 - (2) Shroud tangs
 - (3) A set of fixed spreaders
 - (4) Mainsail halyard sheave box
 - (5) Headsail halyard sheave box
 - (6) Spinnaker halyard sheave box
 - (7) Spinnaker pole fitting
 - (8) Spinnaker pole lift block with attachment
 - (9) Spinnaker pole downhaul block with attachment
 - (10) Gooseneck
 - (11) Kicking strap attachment
 - (12) Heel fitting with ... sheaves for halyards
 - (13)

(b) OPTIONAL

- (1) One mechanical wind indicator
- (2) Compass bracket
- (3)

F.3.5 DIMENSIONS

	minimum	maximum
Mast length	mm	mm
Mast spar curvature	-	mm

	minimum	maximum		
Or				
Mast spar curvature at mm from the mast datum point as defined in F.2.3		mm		
Mast spar deflection when loaded with kg at datum point as defined in F.2.3:	mm from the	mast		
fore-and-aft	mm	mm		
transverse	mm	mm		
Mast spar cross section between and;				
fore-and-aft	mm	mm		
transverse	mm	mm		
Mast limit mark width	mm	mm		
Lower point height		mm		
(Not necessary if the lower point is the mast datum point.)				
Upper point height	-	mm		
Lower point to upper point	-	mm		
Forestay height	mm	mm		
Shroud height	mm	mm		
Spinnaker pole fitting:	ı			
height	mm	mm		
projection	mm	mm		
Spinnaker hoist height				
Spreader;				
length	mm	mm		
height	mm	mm		
Distance from mast datum point as defined in F.2.3 to centre of gravity in condition as described in ERS H.3.6	mm	-		

F.3.16 WEIGHTS

	minimum	maximum
Mast Mass	kg	kg

F.4 BOOM

F.4.1 **MATERIALS**

- (a) The **spar** shall be of
- (b) Permitted surface finish shall be of

F.4.2 CONSTRUCTION

(a) The **spar** extrusion and shall include a fixed sail groove or track which may or may not be integral with the **spar** but shall be of the same material.

(b)

F.4.3 FITTINGS

- (a) MANDATORY
 - (1) Two single sheave mainsheet blocks with attachments
 - (2) Clew outhaul blocks and attachments
 - (3) Kicking strap fitting
 - (4) Gooseneck attachment

(5)

(b) OPTIONAL

- (1) Not more than two wire strops for mainsheet blocks
- (2) Spinnaker pole stowage fittings

(3)

F.4.5 DIMENSIONS

	minimum	maximum	
Boom spar curvature	-	mm	
Or			
Boom spar curvature at mm from the outer	-	mm	
limit mark			
Boom spar deflection when loaded with kg at			
vertical	mm	mm	
transverse	mm	mm	
Boom spar cross section between and;			
vertical	mm	mm	
transverse	mm	mm	

F.4.16 WEIGHTS

	minimum	maximum
Boom Mass	kg	kg

F.5 SPINNAKER POLE

F.5.1 MANUFACTURER

(a) Manufacturer is optional.

(b)

F.5.2 MATERIALS

(a) The **spar** shall be of

(b)

F.5.3 **CONSTRUCTION**

FITTINGS F.5.4

- (a) Fittings are optional.
- (b)

F.5.5 **DIMENSIONS**

	minimum	maximum
Spinnaker pole spar cross section between		
and	mm	mm
Spinnaker pole length	mm	mm

F.5.6 **WEIGHTS**

	minimum	maximum
Spinnaker Pole Mass	kg	kg

F.6 BOWSPRIT

F.6.1 **MANUFACTURER**

- (a) Manufacturer is optional.
- (b)

F.6.2 **MATERIALS**

- (a) The **spar** shall be of
- (b)

CONSTRUCTION F.6.3

(a)

F.6.4 **FITTINGS**

- (a) Fittings are optional.
- (b)

F.6.6 **DIMENSIONS**

	minimum	maximum
Bowsprit spar cross section between		
and	mm	mm
Bowsprit point distance	mm	mm

F.6.7 WEIGHTS

	minimum	maximum
Bowsprit Mass		kg

F.7 STANDING RIGGING

F.7.1 MATERIALS

- (a) The standing **rigging** shall be of stainless steel.
- (b)

F.7.2 CONSTRUCTION

- (a) MANDATORY
 - (1) A **forestay** of ... x... "non faired" (?) wire
 - (2) **Shrouds** of ... x... "non faired" (?) wire
 - (3) A backstay of ... x... "non faired" (?) wire
 - (4)
- (b) OPTIONAL
 - (1)

F.7.3 FITTINGS

- (a) MANDATORY
 - (1) **Forestay** rigging link
 - (2) **Shroud** rigging screw
 - (3) **Backstay** ...
 - (4)
- (b) OPTIONAL
 - (1)

F.7.4 DIMENSIONS

	minimum	maximum
Forestay length from to	-	mm
Forestay diameter	mm	mm
Shroud length from to	-	mm
Shroud diameter	mm	mm
Backstay length from to	-	mm
Backstay diameter	mm	Mm

minimum	maximum

F.7.5 WEIGHTS

minimum	maximum
kg	kg

F.8 RUNNING RIGGING

F.8.1 MATERIALS

- (a) Materials are optional.
- (b)

F.8.2 CONSTRUCTION

- (a) MANDATORY
 - (1) Mainsail halyard
 - (2) Mainsail sheet
 - (3) Kicking strap
 - (4) Headsail halyard
 - (5) Headsail sheets
 - (6) Spinnaker halyard
 - (7) Spinnaker sheet and Spinnaker guy
 - (8) **Spinnaker pole** lift and downhaul
 - (9) **Bowsprit** setting and retraction lines
 - (10)

(b) OPTIONAL

- (1) **Mainsail** Cunningham line
- (2) Mainsail outhaul
- (3) Headsail Cunningham line
- (4) Single line headsail Barber haulers capable of modifying the sheeting angle in one direction only
- (5) Single line spinnaker Barber haulers capable of modifying the sheeting angle in one direction only
- (6)

F.8.3 FITTINGS

- (a) MANDATORY
 - (1)
- (b) OPTIONAL
 - (1) One block or eye in each headsail Barber hauler to run on headsail sheet

(2) One block or eye in each spinnaker Barber hauler to run on spinnaker sheet or guy

(3)

F.8.4 DIMENSIONS

minimum	maximum
mm	mm

F.8.5 WEIGHTS

minimum	maximum
kg	kg

Section G – Sails

G.1 PARTS

- G.1.1 MANDATORY
 - (a) Mainsail
 - (b) Headsail
 - (c)
- G.1.2 OPTIONAL
 - (a) Spinnaker
 - (b) Gennaker
 - (c)

G.2 GENERAL

- G.2.1 RULES
 - (a) Sails shall comply with the class rules in force at the time of certification.
- G.2.2 CERTIFICATION
 - (a) The **official measurer** shall **certify** mainsails and headsails in the **tack** and spinnakers in the **head** and shall sign and date the **certification mark**.
 - (b) The ISAF or an MNA may appoint one or more **In-House Official Measurers** to measure and **certify sails** produced by that manufacturer..
- G.2.3 DEFINITIONS
 - (a)
- G.2.4 SAILMAKER
 - (a) No licence is required.

(b) The weight in g/m² of the **body of the sail** shall be indelibly marked near the **head point** by the sailmaker together with the date and his signature or stamp.

G.3 MAINSAIL

G.3.1 IDENTIFICATION

(a) The class insignia shall conform with the dimensions and requirements as detailed in the diagram contained in ... and be placed in accordance with the diagram contained in

(b)

G.3.2 MATERIALS

- (a) The **ply** fibres shall consist of
- (b) **Stiffening** shall consist of....

Cornerboards...

Battens....

(c) **Sail reinforcement** shall consist of....

G.3.3 CONSTRUCTION

- (a) The construction shall be: soft sail, single ply sail.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout.
- (c) The **sail** shall have ... batten **pockets** in the **leech**.
- (d) The sail shall be constructed so that it can be reefed by means of slab reefing at two points adjacent to the **luff**, two points adjacent to the **leech** and four corresponding points in the **body of the sail.**
- (e) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches**, batten pocket elastic, batten pocket end caps, mast and boom slides, leech line with cleat, one **window**, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable *rules*.
- (f) The **leech** shall not extend aft of straight lines between:
 - (1) the **aft head point** and the intersection of the **leech** and the upper edge of the nearest **batten pocket**,
 - (2) the intersection of the **leech** and the lower edge of a **batten pocket** and the intersection of the **leech** and the upper edge of an adjacent **batten pocket** below,
 - (3) the **clew point** and the intersection of the **leech** and the lower edge of the nearest **batten pocket**.

G.3.4 DIMENSIONS

	minimum	maximum
Leech length	mm	mm
Quarter width	mm	mm
Half width	mm	mm

	minimum	maximum
Three-quarter width	mm	mm
Upper width at upper leech point mm from	,	1
head point	mm	mm
Top width	_	mm
Mass of ply of the body of the sail	g/m ²	
Primary reinforcement	_	mm
Secondary reinforcement:	ı	I
from sail corner measurement points	_	mm
for flutter patches	_	mm
for chafing patches	_	mm
for batten pocket patches	_	mm
at a reefing point adjacent to luff or	_	mm
leech	_	mm
Tabling width	_	mm
Distance from clew point to foot bolt rope	_	mm
Distance from tack point to foot bolt rope	_	mm
Seam width	_	mm
Dart width	_	mm
Tuck width	_	mm
Window area	_	m^2
Window to sail edge		mm
Extension of headboard from head point		mm
Batten pocket length:		
uppermost and lowermost pockets:		
inside	-	mm
outside	-	mm
intermediate pockets:		
inside	_	mm
outside	_	mm
Batten pocket width:		
inside	-	mm
outside	-	mm
Head point to intersection of leech and	-	mm
centreline of uppermost batten pocket		
Head point to intersection of luff and centreline	-	mm
of uppermost batten pocket		
Clew point to intersection of leech and centreline of lowermost batten pocket	-	mm
centrenne of fowermost batten pocket		
	<u> </u>	

G.4 HEADSAIL

G.4.1 MATERIALS

- (a) The **ply** fibres shall consist of
- (b) **Stiffening** shall consist of....
 - (1) Cornerboards...
 - (2) Battens....
- (c) Sail reinforcement shall consist of....

G.4.2 CONSTRUCTION

- (a) The construction shall be: soft sail, single ply sail.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout.
- (c) The headsail shall have ... **batten pockets** in the **leech**.
- (d) The **leech** shall not extend beyond a straight line from the aft **head point** to the **clew point**.
- (e) The following are permitted: Stitching, glues, tapes, corner eyes, hanks, batten pocket elastic, **batten pocket patches**, batten pocket end caps, leech line with cleat, one **window**, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable *rules*.

G.4.3 DIMENSIONS

	minimum	maximum
Luff length	mm	mm
Leech length	mm	mm
Luff Perpendicular	mm	mm
Foot length	mm	mm
Foot median	mm	mm
Half width	mm	mm
Top width	-	mm
Foot irregularity	-	mm
Mass of ply of the body of the sail	g/m^2	-
Primary reinforcement		mm
Secondary reinforcement:		
from sail corner measurement points	-	mm
for flutter patches	-	mm
for chafing patches	-	mm
for batten pocket patches	-	mm
Tabling width	-	mm
Seam width	-	mm
Dart width	-	mm
Tuck width	-	mm
Window area	-	m^2
Window to sail edge	-	mm
Batten pocket length:		

	minimum	maximum
inside	-	mm
outside	-	mm
Batten pocket width:	•	
inside	-	mm
outside	-	mm
Head point to intersection of leech and centreline of uppermost batten pocket	-	mm
Clew point to intersection of leech and centreline of lowermost batten pocket	-	mm

G.5 GENNAKER

G.5.1 **MATERIALS**

- (a) The **ply** fibres shall consist of
- (b) Sail reinforcement shall consist of....

G.5.2 **CONSTRUCTION**

- (a) The construction shall be: soft sail, single ply sail.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout.
- (c) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales and items as permitted or prescribed by other applicable rules.

G.5.3 **DIMENSIONS**

	minimum	maximum
Luff length	mm	mm
Leech length	mm	mm
Foot length	mm	mm
Foot Median	mm	mm
Quarter width	mm	mm
Half width	mm	mm
Mass of ply of the body of the sail	g/m2	-
Primary reinforcement	-	mm
Secondary reinforcement:	i	i
from sail corner measurement points	-	mm
for recovery line point	-	mm
Tabling width	-	mm
Seam width	-	mm
Dart width	-	mm
Tuck width	-	mm

minimum	maximum

G.6 SPINNAKER

G.6.1 MATERIALS

- (a) The **ply** fibres shall consist of
- (b) Sail reinforcement shall consist of....

G.6.2 CONSTRUCTION

- (a) The construction shall be: soft sail, single ply sail.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout.
- (c) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales and items as permitted or prescribed by other applicable *rules*.

G.6.3 DIMENSIONS

	minimum	maximum	
Leech length and luff length	mm	mm	
Foot length	mm	mm	
Foot Median	mm	mm	
Difference between diagonals	-	mm	
Quarter width	mm	mm	
Half width	mm	mm	
Three-quarter width	mm	mm	
Mass of ply of the body of the sail	g/m^2	-	
Primary reinforcement	-	mm	
Secondary reinforcement:			
from sail corner measurement points	-	mm	
for recovery line point	-	mm	
Tabling width	-	mm	
Seam width	-	mm	
Dart width	-	mm	
Tuck width	-	mm	

PART III - APPENDICES

The rules in Part III are closed class rules. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

Section H

H.1

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