

OSPREY CLASS ASSOCIATION

Technical Sub-Committee



2016

Measurement Rules

TECHNICAL SUB-COMMITTEE

2016 Measurement Rules

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OSPREY CLASS ASSOCIATION - 2016 MEASUREMENT RULES

INTRODUCTION

The Osprey is a restricted class, where the intention of the rules is to ensure that in hull form, sailing weight, sail plan and mast weight, the boats are similar.

Osprey hulls, hull appendages, rigs and sails are measurement controlled.

Optional builders may manufacture Osprey hulls, hull appendages, rigs and sails, except that builders using FRP shall be licensed by the Copyright Holder in writing before commencement of building an Osprey.

Osprey hulls, hull appendages, rigs and sails shall, 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.

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

NOTE – IF IT IS NOT STATED THAT YOU CAN DO SOMETHING THEN YOU CANNOT DO IT!

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.2 ABBREVIATIONS

ISAF	International Sailing Federation
MNA	ISAF Member National Authority – for example Royal Yachting Association
NCA	National Class Association – National Osprey Class Association
ERS	ISAF Equipment Rules of Sailing
RRS	ISAF Racing Rules of Sailing

A.3 AUTHORITIES

A.3.1 The authority of the class is the Copyright Holder who shall co-operate with the NCA in all matters concerning these class rules.

A.3.2 Neither the MNA nor the NCA accept any legal responsibility in respect of these rules and/or plans or any claims arising there from.

A.4 ADMINISTRATION OF THE CLASS

A.4.1 The Copyright Holder has the administrative functions of the class. The Copyright Holder may delegate part or all of its functions, as stated in these class rules, to an NCA.

A.5 ISAF RULES

A.5.1 These class rules shall be read in conjunction with the ERS.

A.5.2 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.6 CLASS RULES VARIATIONS

A.6.1 Class rules shall not be varied by Organising Authorities of events without the approval of the appropriate MNA and an appropriate NCA. In the event that there is no appropriate MNA and/or NCA, the Organising Authority shall seek the approval of the Copyright Holder and the UK NCA.

A.7 CLASS RULES AMENDMENTS

A.7.1 Amendments to these class rules are subject to the approval of the Copyright Holder.

A.8 CLASS RULES INTERPRETATION

A.8.1 The Copyright Holder in consultation with the UK NCA shall make interpretations of class rules.

A.9 CLASS FEE

A.9.1 Before commencing build of a non FRP boat, the builder shall seek authorisation from the Copyright holder. The Copyright holder may require a building fee to be paid.

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by the Copyright holder

A.10.2 Sail numbers shall be issued in consecutive order starting at “1”.

A.11 HULL CERTIFICATION

The Osprey Class Association (NCA) shall issue a Certificate to be signed by the owner to confirm that he/she will maintain it such that it complies with these Class Rules and in a condition that would enable it to pass a flotation test as defined in Appendix III – Section H Flotation Tests.

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

Section B – Boat Eligibility

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 in accordance with A 11**.
- (c) have valid **certification marks** as required
- (d) have attached to the aft face of transom a current NCA membership sticker

B.1.2 The owner is:

- (a) a current member of either a MNA or MNA affiliated club
- (b) a current member of an NCA proved by attachment to the measurement certificate of a current NCA membership card

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.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 Rules

- (a) RRS 49.1 is added to as follows:
One pair of trapeze wires, which may be used to support one person only, are permitted
- (b) The ERS Part I – Use of Equipment shall apply.

C.2 CREW

C.2.1 Limitations

The crew shall consist of 2 or 3.

C.3 PERSONAL EQUIPMENT

C.3.1 Mandatory

The boat shall be equipped with personal buoyancy for each crewmember to the minimum standard EN 393: 1995 (CE 50 Newtons).

C.3.2 Optional

One Trapeze harness may be used.

C.4 ADVERTISING

C.4.1 Limitations

Advertising in accordance with ISAF Regulation 20 - Advertising Code Category C is permitted.

C.5 PORTABLE EQUIPMENT

C.5.1 For use

OPTIONAL

- (1) Electronic or mechanical timing devices

- (2) One magnetic compass
- (3) Electronic compasses, which have functions not exceeding timing, heading and directional memory that may include a user, programmed reference heading. All such devices shall be entirely self-contained and with either an internal battery and/or solar power. *For the avoidance of doubt or misunderstanding, they shall not be connected to any external fitting or device by mechanical, electrical or wireless links.*
- (4) Bailers and or sponges.
- (5) Spare parts such as blocks, shackles, ropes etc.
- (6)

C.5.2 Not for use

OPTIONAL

- (1) Towing lines.
- (2) Paddles.
- (3) Mooring lines

C.6 BOAT

C.6.1 Dimensions

	minimum	maximum
Thickness of Non-slip material on gunwhale		3 mm
Overall Length	5335 mm	5385 mm
Mast step limit mark width	10 mm	
Longitudinal distance from hull datum point to forward edge of mast step limit mark	3480 mm	

C.6.2 Weight

The weight of the **hull** shall be taken in dry condition excluding **spars, sails, centreboard, rudder**, rudder stock, tiller and all portable equipment as listed in C.5.

	minimum	maximum
The weight of the boat in dry condition	133.9 kg	

C.6.3 Corrector Weights

Corrector weights shall be permanently fastened to the underside of the main thwart of the boat if the weight is less than the minimum requirement.

	minimum	maximum
Number of corrector weights		2
The total weight of such corrector weights		8kg

C.6.4 Flotation

- (1) The hull shall have flotation elements.
- (2) The boat shall be able to pass the flotation test procedure documented in Section H.

C.7 HULL

C.7.1 Modifications, Maintenance and Repair

Maintenance, modification and repair is optional subject to current class rules

C.7.2 Fittings

USE

- (1) Buoyancy tank hatch covers and drainage plugs shall be kept in place at all times.
- (2) No part of the headsail and spinnaker fairleads shall project beyond the outside edge of the rubbing strake when viewed in plan.

C.8 HULL APPENDAGES

C.8.1 Limitations

Only one centreboard and no more than two rudder blades shall be used during an event of less than 7 consecutive days, except when a hull appendage has been lost or damaged beyond repair.

C.8.2 Centreboard

USE

The centreboard when housed shall not extend above the sheerline, nor shall project below the keel.

C.8.3 Rudder

USE

The rudder shall be fitted to the boat in such a manner that it shall not part company with the boat during a capsize.

C.9 RIG

C.9.1 Modifications, Maintenance and Repair

Maintenance, modification and repair is optional subject to current class rules.

C.9.2 Fittings

All fittings are optional and unrestricted.

C.9.3 Limitations

Only one set of **spars** and **standing rigging** shall be used during an event of less than 7 consecutive days, except when an item has been lost or damaged beyond repair.

C.9.4 Mast

(a) DIMENSIONS

	minimum	maximum
Limit mark width	10 mm	
Mast tip weight	4.0 kg	

(b) USE

- (1) The mast **spar** shall be supported in all directions in the horizontal plane at approximately deck level.
- (2) The bottom of the mast shall take the full weight of the mast, and shall be below the **sheerline**.
- (3) The projected line of the aft edge of the mast **spar** in its stepped position shall not be aft of the forward edge of the mast step **limit mark**

C.9.5 Boom

(a) DIMENSIONS

	minimum	maximum
Limit mark width	10 mm	
Boom spar dimension		102 mm
Boom point distance		3048 mm

(b) USE

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**.

C.9.6 Spinnaker Pole

USE

- (1) One or two spinnaker poles may be used.
- (2) The systems for spinnaker poles are optional.

C.9.7 Standing Rigging

(a) *DIMENSIONS*

	minimum	maximum
Transverse distance between centres of shroud plate holes	1370 mm	
Longitudinal distance from hull datum point to centre of shroud plate holes		3200 mm

(b) *USE*

- (1) Special levers or devices to alter the effective length, while racing, of rigging attached to the mast above the **mast datum point** are permitted.
- (2) The effective length of not more than one strut or similar device and/or one pair of lower shrouds, attached to or bearing on the mast below the **lower point** may be adjusted while racing.

C.9.8 Running Rigging

USE

All running rigging and associated systems are optional.

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 sewing, mending and patching is permitted without re-measurement and re-**certification**.

C.10.2 Limitations

Not more than 2 mainsail, 2 headsails and 2 spinnakers shall be used during an event of less than 7 consecutive days, except when a **sail** has been lost or damaged beyond repair.

C.10.3 Mainsail

USE

- (1) The method of hoisting the **sail** is optional. However, it shall be possible to lower the **sail** whilst the boat is in its normal sailing orientation.
- (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 aft of the fore side of the boom **outer limit mark**.
- (3) **Luff** bolt ropes shall be in the mast **spar** groove or track.

C.10.4 Spinnaker

USE

- (1) The method of hoisting the **sail** is optional. However it shall be possible to lower the **sail** whilst the boat is in its normal sailing orientation.
- (2) The method of retrieval and stowage of the **sail** is optional.

Section D – Hull

D.1 PARTS

D.1.1 Mandatory

- (a) External hull shell including transom
- (b) Foredeck
- (c) Side decks
- (d) Cockpit
- (e) Bulkheads
- (f) Buoyancy chambers
- (g) Thwart
- (h) Gunwale Rubbing Strakes
- (i) Floor battens, two on each bottom panel wood boats only, running fore & aft
- (j) Floor beam running athwartships positioned between aft end of centreboard case and transom in boats with a wood hull
- (k) Longitudinal stringers, 3 each side in wood boats only
- (l) Bottom panel, one each side
- (m) Lower bilge panel, one each side
- (n) Upper bilge panel, one each side
- (o) Topside panel, one each side
- (p) Longitudinal buoyancy tank bulkheads
- (q) Longitudinal buoyancy tank stringer, 1 each side in wood boats
- (r) Keel
- (s) Keel band for length of centreboard slot

D.1.2 Optional

- (a) Additional thwart(s)
- (b) Lower foredeck
- (c) Aft deck

- (d) Bilge keels, one on each bottom panel
- (e) Additional keel band
- (f) Any other item such as, but not limited to, spinnaker chute or storage bins. However, any such additions shall not alter the draining properties of the cockpit.

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) The hull shall conform to one of the Class Association and Copyright Holder approved Marks II to V of Osprey or approved variations using a feature or features from a different mark of Osprey as documented in Part 3 Appendix J.
- c) Boats of Mark II, IIA, III or IIIA shall comply with the rules contained in Part 3 Appendix K.
- d) The hull of boats of Mark IV or V supplied by the Copyright Holder shall only be altered to:-
 - a. Add, remove or change fittings, including mounting pads and brackets for the sole purpose of attaching said fittings.
 - b. Genuine repair of damage
 - c. Routine maintenance such as polishing and painting
- e) No fixtures and fittings shall be outside of the hull skin, except shroud plates, rudder fittings, keelband, centreboard case slot gasket, self-bailers and transom flaps.
- f) No fixtures and fittings shall project beyond the edge of the gunwhales except non-slip material.
- g) Tubes passing into or through buoyancy chambers shall not affect the water tightness of those chambers.
- h)
- i)

D.2.2 Certification

See Rule A.13.

D.2.3 Modifications, Maintenance and Repair

- (a) The hull shell shall not be altered in any way except as permitted by these class rules, without re-measurement and re-certification.

- (b) Routine maintenance such as painting and polishing is permitted without re-measurement and re-certification.

Section E – Hull Appendages

E.1 Parts

E.1.1 Mandatory

- a) Centreboard
- b) Rudder

E.2 General

E.2.1 Rules

Hull appendages shall comply with the **class rules** in force at the time of construction. If the date of construction cannot be satisfactorily determined then the hull appendages shall comply with the **class rules** current at the time any compliance checks are undertaken.

E.2.2 Manufacturers

- a) The manufacturer of **hull appendages** is optional.

E.3 Centreboard

E.3.1 RULES

- a) The weight of the centreboard shall be indelibly marked on the surface in such a way that the weight may be read when the centreboard is fitted in the boat fully raised.
- b) When hung from its pivot bolt and fully raised no part shall project below the keel or project above the **sheerline**.
- c) Protective material may be incorporated in to the edges of the centreboard.
- d) The centreboard shall be symmetrical in cross section. The cross-section to be a plane perpendicular to both the plane of the centreboard and the leading edge of the centreboard.
- e) The leading and trailing edges of the centreboard shall be straight lines between the measurement points.
- f) The centreboard may only rotate about the axis of the pivot bolt; rotation about an axis perpendicular to the axis of the pivot bolt is prohibited, *i.e.* gybing centreboards are prohibited.

E.3.1 Materials

The centreboard shall each be constructed from one or more of the following materials: -

- ❖ Carbon fibres
- ❖ Closed cell foam
- ❖ Polyester or Epoxy resins
- ❖ Fillers
- ❖ Glass fibres
- ❖ Mechanical fastenings

- ❖ Plastic fibres
- ❖ Solid wood and/or water resistant plywood
- ❖ Any other material up to 5% by weight

E.3.2 Construction

- a) The **centreboard** shall have no moving parts.
- b) The shape of the centreboard between the tip and a line perpendicular to point 300 mm from the tip measured along trailing edge is optional, but no part shall extend beyond the extension of the lines of the leading and trailing edges

E.3.3 Dimensions

	Minimum	Maximum
Thickness of centreboard that can project below keel		25 mm
Protective material on edges of centreboard		10 mm
Weight of centreboard	5 kg	8 kg
When hung from its pivot bolt and fully lowered, the distance from the keel to the tip of the centreboard shall be	1200 mm	1225 mm
Profile Option 1		
Width at 1100 mm from tip measured along the leading edge and measured perpendicular to leading edge	435 mm	445 mm
Width at 300 mm from tip measured along the leading edge and measured perpendicular to leading edge	235 mm	245 mm
Longitudinal distance from hull datum point to aft edge centreboard with trailing edge perpendicular to keel	2615 mm	
Profile Option 2		
Width at 1100 mm from tip measured along the leading edge and measured perpendicular to leading edge	395 mm	401 mm
Width at 300 mm from tip measured along the leading edge and measured perpendicular to leading edge	231 mm	237 mm
Longitudinal distance from hull datum point to aft edge centreboard with trailing edge perpendicular to keel	2630 mm	

E.4 Rudder Blade, Rudder Stock and Tiller

E.4.1 Materials

Optional

E.4.2 Construction

The construction and design of the **rudder** blade, **rudder** stock, tiller and tiller extension is optional.

E.4.3 Fittings

MANDATORY

A system to prevent the rudder parting company from the boat during a capsize.

Section F – Rig

F.1 Parts

F.1.1 Mandatory

- a) Mast
- b) Boom
- c) Standing rigging comprising of two shrouds.
- d) Spinnaker pole

F.1.2 Optional

- a) One forestay
- b) Two lower shrouds
- c) Strut or similar
- d) Running **rigging** and associated systems are optional.

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 manufacture of the **spar**. If the date of manufacture cannot be satisfactorily determined then the **spars** shall comply with the **class rules** current at the time any compliance checks are undertaken.
- b) The standing and running **rigging** shall comply with the **class rules**.

F.2.2 Modifications, Maintenance and repair

Spars shall not be altered in any way except as permitted by these **class rules**.

F.2.3 Certification

- a) .No certification of spars, standing and running rigging is required.

F.2.4 Definitions

MAST DATUM POINT

The **mast datum point** is the **heel point**.

F.2.5 Manufacturer

The manufacturer of aluminium alloy or wood masts is optional and no licence is required.

Masts manufactured of carbon fibre based composite shall be to the specification of and sourced through the copyright holder. Masts manufactured before the 1st September 2015, provided they were originally manufactured for the Osprey Class, are permitted

.F.3 Mast

F.3.1 Rules

- a) The mast shall be stepped on the mast spur.
- b) The mast shall pass through the mast gate.
- c) The mast shall have one set of spreaders.
- d) The mast may have one set of jumper struts.
- e) The mast shall include a fixed sail groove or track, which may or may not be integral with the **spar** but shall be of permitted material.

F.3.2 Materials

Spar materials shall consist of one or more of wood, aluminium alloy, or carbon fibre based composite and anti-corrosion materials.

F.3.3 Construction

The design and construction of the **spar** is optional.

F.3.4 Fittings

All fittings are optional and the materials used in manufacture are optional.

F.3.5 Dimensions

Where no limit(s) for a particular dimension is given then the item is not controlled and need not be measured.

	Minimum	Maximum
Mast spar curvature		50 mm
Mast limit mark width	10 mm	
Lower point height		1168 mm
Upper point height		7265 mm
Forestay height The extension of the line of the headsail luff above the mast datum point		5360 mm
Spinnaker pole fitting projection		50 mm
Spinnaker hoist height above mast datum point		5465 mm
Spinnaker hoist fitting projection		100 mm
Mast tenon depth		25mm

F.3.6 Weights

	Minimum	Maximum
Mast tip weight at Upper point height with mast supported at heel point as near as possible	4.0 kg	

F.4 Boom

F.4.1 Rules

The boom may include a fixed sail groove or track, which may or may not be integral with the **spar** but shall be of permitted material.

F.4.2 Materials

Spar materials shall consist of one or more of wood, aluminium alloy, or carbon fibre composite and anti-corrosion materials.

F.4.3 Construction

The construction and design of the spar is optional.

F.4.4 Fittings

All fittings are optional and the materials of manufacture are optional.

F.4.5 Dimensions

Where no limit(s) for a particular dimension is given then the item is not controlled and need not be measured.

	Minimum	Maximum
Boom spar curvature		25 mm
Boom point distance		3048 mm
Boom spar cross section Complete with any track but excluding fittings, shall pass through a circle of diameter		100 mm

F.5 Spinnaker Pole

F.5.1 Manufacturer

Manufacturer is optional.

F.5.2 Materials

Spar material is optional.

F.5.3 Construction

Construction and design is optional.

F.5.4 Fittings

Fittings are optional.

F.5.5 Dimensions

Where no limit(s) for a particular dimension is given then the item is not controlled and need not be measured.

	Minimum	Maximum
Spinnaker pole length		2516 mm

F.6 Standing Rigging

F.6.1 Materials

The material of the standing rigging is optional.

F.6.2 Construction

Optional

F.6.3 Fittings

Optional

F.6.4 Dimensions

Optional

F.7 Running Rigging

F.7.1 Materials

Optional

F.7.2 Construction

Optional

F.7.3 Fittings

Optional

Section G – Sails

G.1 Parts

G.1.1 Mandatory

- a) Mainsail
- b) Headsail
- c) Spinnaker

G.2 General

G.2.1 Rules

- a) **Sails** shall comply with the **class rules** in force at the time of **certification of sails**.
- b) **Sails** shall be made and measured in accordance with the current ISAF Sail Measurement Rules, except where varied herein.

G.2.2 Certification

- a) New or substantially altered sails shall be measured by an **official measurer** who shall **certify** mainsails and headsails in the **tack** and spinnakers in the **head** by signing and dating the sails.
- b) An MNA may appoint one or more persons to measure and **certify sails** produced by a manufacturer in accordance with the ISAF In-house Certification Guidelines.

G.2.3 Sailmaker

The Sailmaker is optional and no licence is required.

G.3 Mainsail

G.3.1 Identification

The class insignia, in any colour shall conform to the visual form shown and dimensions in the diagram below and shall be placed in accordance with RRS Appendix G.

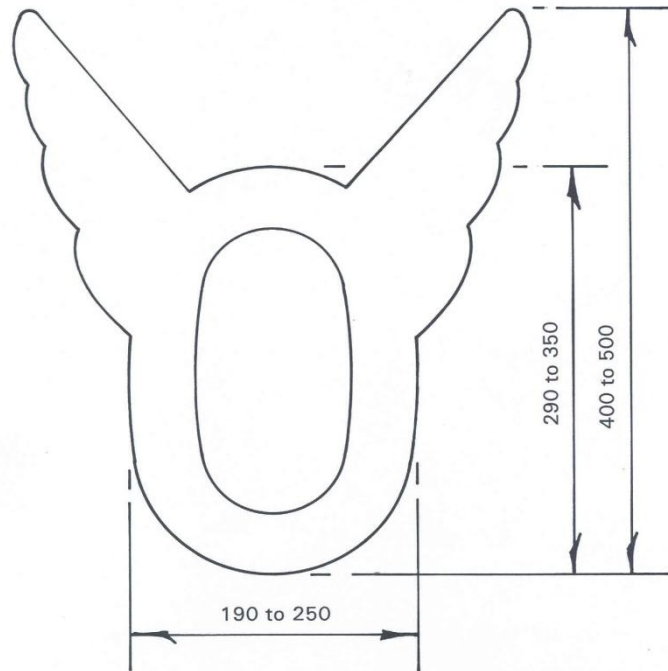
PART C

CLASS INSIGNIA

All dimensions are in mm.

Thickness = 40 to 65

"Wings" may have 3 to 5 "feathers" each



The sail number and MNA letters(s) (if displayed) shall be placed according to RRS Appendix G and comply with the following dimensions.

	Minimum	Maximum
Height	300 mm	
Width (except number 1 and letter I)	200 mm	
Thickness	50 mm	60 mm
Spacing between adjoining numbers or letters or edge of sail	60mm	

G.3.2 Materials

- a) The **ply** fibres shall consist of woven or laminated polyester, aromatic polyamides (arimid) such as Kevlar ^[Dupont trade name] or HMPE such as Dyneema™ or Spectra™.
- b) **Stiffening** shall consist of:
 - ❖ Cornerboards: material optional.
 - ❖ Battens: material optional.
- c) **Sail reinforcement** shall consist of materials listed in G.3.2(a) above.
- d) The minimum weight of sail material shall be 120 g/m² nominal.

G.3.3 Construction

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

- b) The **body of the sail** may consist of different **woven and laminated ply** throughout.
- c) The **sail** shall have 4 batten **pockets** in the **leech**. The batten nearest the **head** of the **sail** shall extend from the **leech** to the **luff**.
- d) Not less than 85% of the **luff** of the mainsail shall be attached to the mast.
- e) The **foot** of the **mainsail** shall be attached to the **boom** at the **tack** and **clew** and may be attached to the boom along the foot.
- f) The following are permitted: Stitching, glues, webbing, tapes and PTFE tapes, bolt ropes, corner eyes, corner rings, Velcro or other fastenings, headboard with fixings, Cunningham eye or pulley, batten pocket elastic, batten pocket end caps, mast and boom slides, leech line with cleat, not more than two windows located below the **half width** measurement, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable **rules**.

G.3.4 Dimensions

Where no limit(s) for a particular dimension is given, then the item is not controlled and need not be measured.

	Minimum	Maximum
Leach length		6785 mm
Quarter width		2700 mm
Half width		2075 mm
Three quarter width		1200 mm
Top width		120 mm
Ply weight of the body of the sail	120 g/m ²	
Tabling width		65 mm
Seam width		65 mm
Number of windows		2
Total window area		0.3 m ²
Shortest distance from window to edge of sail	150 mm	
Window(s) located below half height		
Greatest dimension of headboard from head point		120 mm
Batten pocket length		
Inside		
Uppermost pocket		1010 mm
Other pockets		1040 mm
Outside		
Uppermost pocket		1030 mm
Other pockets		1060 mm
Batten pocket width		
Inside		60 mm
Outside		100 mm
Head point to intersection of leech and centreline of uppermost batten pocket	1300 mm	1450 mm
Head point to intersection of luff and centreline of uppermost batten pocket	1000 mm	

	Minimum	Maximum
Clew point to intersection of leech and centreline of lowermost batten pocket	1300 mm	1400 mm
Loose-footed mainsail drop The foot drop measurement for a loose-footed mainsail shall be taken from the edge of the sail to a straight line between the tack point and the clew point with sufficient tension, between the tack point and clew point, to remove any creases or wrinkles, additionally the head of the sail shall be held in position with sufficient tension to stop it being dragged down as the foot is pulled out to determine the maximum foot drop measurement.		250 mm

G.4 Headsail

G.4.1 Materials

- The **ply** fibres shall consist of woven or laminated polyester, aromatic polyamides (aramid) such as Kevlar ^[Dupont trade name] or HMPE such as Dyneema™ or Spectra™.
- Stiffening** shall consist of materials listed in G.4.1(a) above
- Sail reinforcement** shall consist of materials listed in (a) above
- The minimum weight of sail material shall be 120 g/m² nominal.

G.4.2 Construction

- The construction shall be: **soft sail, single ply sail.**
- The **body of the sail** may consist of different **woven and laminated ply** throughout.
- The following are permitted: Stitching, glues, webbing, tapes, luff wire, corner eyes, corner rings, clew board with fixings, hanks, Velcro, press studs, zippers, Cunningham eye with cleat, leech line with cleat, not more than two **window** located below the **half width** measurement, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable *rules*.

G.4.3 Dimensions

Where no limit(s) for a particular dimension is given then, the item is not controlled and need not be measured.

	Minimum	Maximum
Large headsail		
Luff length	4050 mm	4100 mm
Leech length	3800 mm	4000 mm
Foot length	2400 mm	2450 mm
Top width		50 mm
Ply weight of the body of the sail	120 g/m ²	
Tabling width		65 mm
Seam width		65 mm
Number of windows		2
Total window area		0.3 m ²

	Minimum	Maximum
Window(s) located below half height		
Shortest distance from window to edge of sail	150mm	
Small headsail		
Luff length	3800 mm	4100 mm
Leech length	3450 mm	3950 mm
Foot length	1350 mm	1650 mm
Top width		50 mm
Ply weight of the body of the sail	120 g/m ²	
Primary reinforcement		300 mm
Secondary reinforcement		
from corner measurement points		900 mm
for flutter patches		100 mm
For chaffing patches		900 mm
Tabling width at luff		65 mm
Tabling width elsewhere		35 mm
Seam width		20 mm
Number of windows		2
Total window area		0.3 m ²
Window(s) located below half height		
Shortest distance from window to edge of sail	150mm	

G.5 Spinnaker

G.5.1 Identification

- The sail number and national letters need not be displayed on the spinnaker.
- The sail number and MNA letter(s) (if displayed) shall be placed as laid down in RRS Appendix G, except that they may be shown on the leeward side only and conform to the dimensions in G3.1 above.

G.5.2 Materials

- The **ply** fibres shall consist of woven **ply** of nylon, polyester or polyamide.
- Sail reinforcement** shall consist of materials listed in G.5.2(a) above.

G.5.3 Construction

- The construction shall be: **soft sail, single ply sail**.
- The **body of the sail** may consist of different **woven ply** throughout.
- The following are permitted: Stitching, glues, webbing, tapes, corner eyes, corner rings, recovery line eyes, headboard with fixings, tell tales and items as permitted or prescribed by other applicable **rules**.

G.5.4 Dimensions

Where no limit(s) for a particular dimension is given then, the item is not controlled and need not be measured.

	Minimum	Maximum
Leech length		5200 mm

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Difference in leech lengths		50 mm
Foot length		4300 mm
Foot median		5700 mm
Quarter width		4400 mm
Half width	75% of foot length	3700 mm
Three quarter width		2100 mm
Weight of body of the sail	20 g/m ²	
Tabling width		65 mm
Seam width		65 mm

Part III – APPENDICIES

Section H – Flotation Tests

Owners shall check all watertight joints and satisfy themselves that these are efficient and that the hatches are adequately watertight. There are two approved methods for checking buoyancy

Immersion test

- ❖ The boat shall be floated for 5 minutes on each side supporting a minimum of 150kg and with the stepped mast horizontal, supported above the top band.
- ❖ The boat shall then be righted and, with a minimum of 200 kg on board, the cockpit filled with water until, as nearly as possible, it overflows the top of the centreboard case. After 5 minutes in this condition, the tanks shall be inspected for leakage. Sum of water from all buoyancy tanks shall not be in excess of 20 litres.

Air test

- ❖ All hatches shall be closed normally using only the boats hatch covers and fastenings. Draining holes shall be closed with their normal stoppers. Equipment for producing a pressure differential between the buoyancy compartment and the atmosphere and a water gauge for measuring the differential shall be connected to a compartment through a hatch or drain hole.
- ❖ Air pressure shall be applied to the compartment to produce a differential reading of at least 125mm on the water gauge. After isolating the buoyancy compartment from the pressure source, the pressure differential shall not reduce from 125mm to below 50mm in less than 30 seconds.

When flooded and carrying both crewmembers, the rigged boat shall float with the top of the transom above water. Note that boats constructed to Mark II or Mark III plans can be expected to comply with this rule.

IN THE EVENT OF ANY DOUBT OVER THE RESULTS OF AN AIR TEST, AN IMMERSION TEST SHALL BE CARRIED OUT.

Section J – Approved Variants

Mk II Conversion

Mk II boat, *i.e.* one with a stern deck, may be converted to the deck layout of a Mk III. Once the conversion is completed the boat shall be measured as if a new boat, including having the **hull** weight measured.

Plans and instructions shall be obtained from the Osprey Class Association before commencement of modifications.

MK IIA

In Mark II versions the following modifications may be undertaken but if undertaken shall be completed in full.

- 1) The aft bulkhead shall be cut away to within not less than 25mm nor more than 35mm of the edge of the inside of the side buoyancy tank face and inside hull.
- 2) The combing trim shall remain unaltered.
- 3) Two drain ports, each not more than 0.03m² in area, shall be cut in the transom. At no point shall any transom port be less than 25mm from the edge of the transom.
- 4) The side buoyancy tanks shall be made watertight at their aft end. An additional watertight inspection port of not more than 100mm in diameter may be fitted in the aft transverse end of each side buoyancy tank.
- 5) Four vent holes, each not more than 0.05m² in area, shall be cut in the aft deck. Such holes shall be in accordance with the requirements and dimensions contained within Appendix K of these rules and shall be cut along the innermost edge of the inwhale. Deck frames shall not be cut or removed.

Templates and instructions shall be obtained from the Osprey Class Association before commencement of modifications.

Mk IIIA

Mk III boat, *i.e.* one without a stern deck/buoyancy chamber, may have the centreboard case converted to house a centreboard with the Option 2 Profile. Once the conversion is completed the centreboard case, centreboard and thwart shall be measured as if a new boat including having the **hull** weight measured.

Plans and instructions shall be obtained from the Osprey Class Association before commencement of modifications.

Section K – Hull Applicable to Mark II, III and approved variants only.

D.2.4 Definitions

HULL DATUM POINT

The **hull datum point** is the intersection of the keel line and the transom on the centreline of the hull.

HULL DATUM PLANE

The hull datum plane is a vertical plane passing through the **hull datum point** at right angles to the vertical plane through the centreline of the hull and parallel to a vertical plane passing through shroud positions.

D.2.5 Identification

The hull shall carry the sail number, either cut into the hog aft of the centreboard case in figures not less than 25 mm high in the case of a wood hull or stamped on a builders plate attached to the cockpit face of the transom or aft buoyancy tank.

D.2.6 Builders

Wood hull - The builder is optional.

FRP hull –

- ❖ The Copyright Holder shall license the builder in writing.
- ❖ The builder shall use moulds approved in writing by the Copyright Holder.

D.3 HULL SHELL

D.3.1 Materials

- (a) The hull shall each be constructed from one or more of the following materials: -
- ❖ Closed cell foam
 - ❖ Fillers
 - ❖ Glass fibres having a low alkali content and a modulus of elasticity less than 100,000 kg per cm²
 - ❖ Mechanical fastenings
 - ❖ Plastic fibres having a modulus of elasticity less than 100,000 kg per cm²
 - ❖ Polyester or epoxy resins
 - ❖ Solid wood and/or water resistant plywood
 - ❖ Any other material up to 2% by weight of the minimum measured weight, excluding **corrector weights**

D.3.2 Construction

- a) The construction methods for the **hull** are optional.

- b) An upper plank shall overlap a lower plank on each side.
- c) Only lower plank shall be bevelled.
- d) Not more than 3 inspection apertures, shall be permitted in each longitudinal bulkhead.
- e) Not more than 2 inspection apertures, shall be permitted in each transverse bulkhead, one of which may be in a hatch cover.
- f) Not more than 2 drain holes, are permitted in each longitudinal bulkhead, transverse bulkhead or transom.
- g) At least one thwart shall be fitted joining the centreboard capping to each longitudinal bulkhead.
- h) Not more than 2 drain tubes may fitted through stern buoyancy tank.

D.4 DECK

D.4.1 Materials

- (a) The deck shall each be constructed from one or more of the following materials: -
 - ❖ Closed cell foam
 - ❖ Fillers
 - ❖ Glass fibres having a low alkali content and a modulus of elasticity less than 100,000 kg per cm²
 - ❖ Mechanical fastenings
 - ❖ Plastic fibres having a modulus of elasticity less than 100,000 kg per cm²
 - ❖ Polyester or epoxy resins
 - ❖ Solid wood and/or water resistant plywood
 - ❖ Any other material up to 2% by weight of the minimum measured weight, excluding corrector weights

D.4.2 Construction

The construction and design is optional.

- a) The foredeck including trim, fixtures and fittings shall not extend aft of a line drawn between the aft edge of the foredeck on the centreline of the hull and where the extended line of the foredeck meets the **sheer line**.
- b) Side decks shall extend the full distance between the foredeck and aft buoyancy chambers or transom.

D.5 BOUYANCY TANKS

D.5.1 Construction

- (a) Buoyancy apparatus shall comprise of sufficient to float the boat, plus 200kg: approximately level when full of water for at least 30 minutes, with the weight evenly placed about the centre line between Station 2 and Station 3.
- (b) FRP and composite boats shall have not less than 0.2 m³ of solid closed cell buoyancy permanently attached to the **hull**. This may include constructional closed cell foam in foam sandwich boats
- (c) In FRP and composite boats there shall be not less than 0.03m³ solid closed cell foam buoyancy located within 1500 mm of the transom and start not more than 250 mm from the transom.
- (d) All solid closed cell foam buoyancy shall have a waterproof covering.
- (e) The solid closed cell foam buoyancy shall be evenly distributed about the fore and aft centreline.
- (f) Forward buoyancy chamber shall be formed by a transverse watertight bulkhead forming watertight joints with the inside face of the hull shell and the underside of the upper foredeck
or
forming watertight joints with inside face of the hull shell and an additional lower foredeck, which shall be fitted no lower than the top deck side of the stringers joining the top panels and upper bilge panels.
- (g) Longitudinal watertight bulkheads shall extend from the inner edges of the side decks to the inner edges of the lower seam stringers throughout the length of the side decks, and make watertight joints with the aft bulkhead (Mark II versions) or transom (Mark III versions) and the forward bulkhead and the underside of the foredeck forward of the carling if the side deck panel is not extended to the forward bulkhead.
- (h) All apertures into buoyancy chambers shall be watertight when closed.
- (i) The forward and aft, where present, and longitudinal buoyancy chambers shall form individual completely separate watertight chambers.

D.6 GUNWALE AND RUBBING STRAKES

D.6.1 Materials

- (a) The gunwhale and rubbing strakes shall each be constructed from one or more of the following materials: -
 - ❖ Closed cell foam
 - ❖ Fillers

- ❖ Glass fibres having a low alkali content and a modulus of elasticity less than 100,000 kg per cm²
- ❖ Mechanical fastenings
- ❖ Plastic fibres having a modulus of elasticity less than 100,000 kg per cm²
- ❖ Polyester or epoxy resins
- ❖ Solid wood or water resistant plywood
- ❖ Any other material up to 0.5% by weight of the minimum measured weight, excluding corrector weights

D.6.2 Construction

Construction is optional.

D.6.3 Dimensions

	minimum	maximum
Thickness	28 mm	60 mm
Plan width from hull skin on undersides	73 mm	79 mm

D.7 BULKHEADS

D.7.1 Materials

Bulkheads shall each be constructed from one or more of the following materials: -

- ❖ Closed cell foam
- ❖ Fillers
- ❖ Glass fibres having a low alkali content and a modulus of elasticity less than 100,000 kg per cm²
- ❖ Mechanical fastenings
- ❖ Plastic fibres having a modulus of elasticity less than 100,000 kg per cm²
- ❖ Polyester or epoxy resins
- ❖ Solid wood or water resistant plywood
- ❖ Any other material up to 0.5% by weight of the minimum measured weight

D.7.2 Construction

Optional

D.8 THWARTS

D.8.1 Materials

The thwart(s) shall each be constructed from one or more of the following materials: -

- ❖ Closed cell foam
- ❖ Fillers
- ❖ Glass fibres having a low alkali content and a modulus of elasticity less than 100,000 kg per cm²
- ❖ Mechanical fastenings
- ❖ Plastic fibres having a modulus of elasticity less than 100,000 kg per cm²
- ❖ Polyester or epoxy resins
- ❖ Solid wood and/or water resistant plywood

D.8.2 Construction

Optional

D.8.3 Dimensions

	minimum	maximum
Width of thwart closest to front bulkhead	102 mm	
Longitudinal distance from hull datum plane to aft edge of thwart closest to front bulkhead	2080 mm	2465 mm
Width of additional thwarts		102 mm

D.10 ASSEMBLED HULL

D.10.1 Fittings

(a) MANDATORY

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

- (1) Shroud plates fixed to topside panels, gunwales or pads thereon.
- (2) Rudder fittings shall be fixed on the vertical centre plane of the transom.

- (3) Mainsheet track if fitted shall not exceed the width between the longitudinal bulkheads unless the centreline of the track is within 102 mm of the hull datum plane.
- (4) Fittings and fixtures shall not project beyond the outside edge of the rubbing strake when viewed in plan.

(b) OPTIONAL

- (1) All fittings and fixtures unless specifically stated to the contrary are optional.
- (2) Non-slip material on gunwhales, cockpit floor and upper edges of centreboard case.
- (3) Transom flaps

D.10.2 Dimensions

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

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

- (1) at Station 0: 278 mm from the hull shell
- (2) at 3050 mm from hull datum point measured along the angle between the keel and the outside of the bottom panel: 100 mm from the hull shell

The sections shall be taken as vertical, transverse planes at the following distances from the aft datum point measured along the angle between the keel and the outside of the bottom panel, except for Station 1 and station 5 which shall be taken at 51 mm from the centreline measured along the outside of the bottom panel:

- ❖ Station 0: at 0 mm from hull datum point
- ❖ Station 1: at 914 mm from hull datum point
- ❖ Station 2: at 2438 mm from hull datum point.
- ❖ Station 3: at 3658 mm from hull datum point.
- ❖ Station 4: at 4724 mm from hull datum point.
- ❖ Station 5: at 5030 mm from hull datum point.

	Minimum	Maximum
Top, side and lower deck thickness (wood)	4.35 mm	

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	Minimum	Maximum
Upper surface of lower foredeck above upper surface of hog on fore & aft centreline, if fitted	350 mm	
Bottom panel thickness (wood)	7.35 mm	
Bottom panel edge radius		7.35 mm
Bilge & topside panel thickness (wood)	5.30 mm	
Bilge & top panel edge radius		5.30 mm
Panel bevel & rabbetting from outside line of stem and aft datum plane		432 mm
Longitudinal buoyancy tank bulkheads		
thickness (wood)	7.35 mm	
spacing V(wood)		450 mm
number each side Mk II	7	
number each side Mk III	9	
Transverse bulkhead thickness (wood)	5.30 mm	
Longitudinal bulkhead thickness (wood)	4.35 mm	
Centreboard case side panel thickness (wood)	7.35 mm	
Longitudinal buoyancy tank stringers		
Width	15 mm	
Thickness	19 mm	
Transom thickness	15.00 mm	
FRP moulding thickness	2.00 mm	
Deck beam /strut dimensions at aft edge of mast gate slot		
width	15 mm	
depth	15 mm	
Bilge keel (if fitted)		

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	Minimum	Maximum
Length	2210 mm	
Width	38 mm	
Thickness	13 mm	
Edge radius	13 mm	
Mid point from aft datum plane measured parallel to garboard seam	1930 mm	
Distance from garboard seam	355 mm	
Taper from ends		51 mm
Floor beam		
Number		1
Thickness		25 mm
Height above floor adjacent to side tank vertical face		45 mm
Height above hog on fore & aft centreline		65 mm
Distance from aft measurement point plane	905 mm	925 mm
Floor battens		
Number on each bottom panel		2
Length	2375 mm	
Width	63 mm	
Thickness	8 mm	
Taper from ends		51 mm
Edge radius		13 mm
Drain ports through aft buoyancy chamber and/or drain ports in transom		
Number		2

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	Minimum	Maximum
Total cross-sectional area		0.06 m ²
Distance from edge of transom	25 mm	
Centreboard slot distance from hull datum point plane		
To fore end of centreboard slot	3175 mm	3225 mm
To aft end of centreboard slot	1625 mm	1675 mm
Width of centreboard slot		31mm
Buoyancy chamber access aperture		
In fore bulkhead MkII depth	343 mm	369 mm
In fore bulkhead MkII width	267 mm	293 mm
In aft bulkhead MkII depth	229 mm	255 mm
In aft bulkhead MkII width	343 mm	369 mm
Number in each of MkII fore & aft bulkhead		1
In fore bulkhead depth in MkIII (if fitted)		387mm
In fore bulkhead width in MkIII (if fitted)		285 mm
Number in fore bulkhead of MkIII (if fitted)		1
Inner edge distance from vertical centreline in MkIII	65 mm	85 mm

Change History

Date	Description
15 th June 2016	Updated to reflect Mark V and proposed to 2016 AGM for endorsement.
1 st August 2015	Updated to include amendments approved at 2014 AGM and minor wording changes.
23 rd September 2013	Updated to include amendments proposed to 2013 AGM and approved
21 st July 2011	Updated to included amendments proposed following feedback to the new structure of the rules fitting ISAF Standard Class Rules layout at the 2008 AGM Updated to include 2009 AGM approval of Loose-footed mainsail
2008	Complete re-write of measurement rules to follow structure of ISAF Standard Class Rules and remove separate sections for wood & FRP construction
2004	Last edition of Osprey Class measurement Rules issued by the RYA