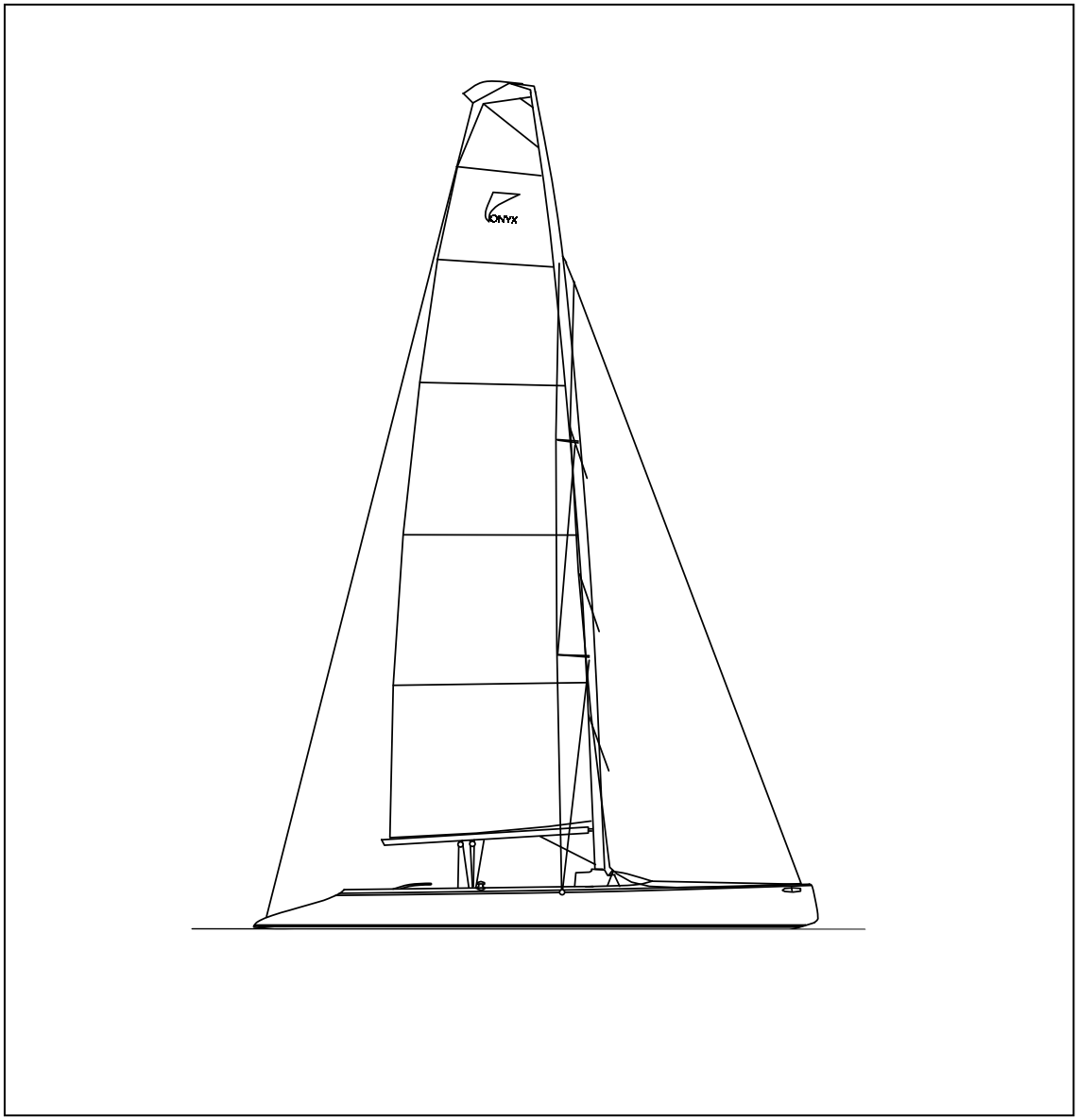
INTERNATIONAL

ONYX

ONE DESIGN CLASS RULES

2010

The rules marked with * will be only in force after “Recognized Class” status by ISAF, until that recognition Swiss Sailing Measurement Committee will be substitute to ISAF.



The ONYX was designed in 2003 by Thomas Cantz and was adopted as an international / recognised class in 20...

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INTRODUCTION

The ONYX was designed by Thomas Cantz focusing the following objectives:

- *simple and easy handling*
- *elegant and characteristic shape*
- *high sailing performance*
- *sensitive in light conditions, save in strong wind*

Thomas Cantz is holder of the copyright of ONYX. The copyright holder shall be a permanent member of the technical committee of the International ONYX Class Association.

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

ONYX hull, hull appendages and rig shall only be manufactured by manufacturers approved by the copyright holder – in the class rules referred to as licensed manufacturers. Equipment is required to comply with the International ONYX Building Specification and is subject to an ISAF approved manufacturing control system.

Note: Where the class permits In-House Certification (IHC) it should be mentioned here which items may be produced under IHC.

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.2 ABBREVIATIONS

A.2.1

ISAF	International Sailing Federation
MNA	ISAF Member National Authority
ICA	International ONYX Class Association
NCA	National Class Association
ERS	Equipment Rules of Sailing
RRS	Racing Rules of Sailing
TC	Technical Committee of the International ONYX Class Association
CM	Class Chief Measurer
MF	Measurement Form
MC	Measurement Certificate
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 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 RRS and ISAF Regulations shall apply.

*A.7 CLASS RULES AMENDMENTS

A.7.1 Amendments to these **class rules** are subject to the approval of the TC in accordance with the CM and shall be voted by the ICA in accordance with the ISAF Regulations.

A.8 CLASS RULES INTERPRETATION

A.8.1 Interpretation of **class rules** shall be made by the CM upon consultation of the TC and in accordance with the ISAF Regulations.

*A.9 INTERNATIONAL CLASS FEE AND ISAF BUILDING PLAQUE

A.9.1 The licensed boat builder shall pay the International Class Fee.

A.9.2 ISAF shall, after having received the International Class Fee for the hull, send the ISAF Building Plaque and a measurement form to the licensed boat builder.

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by CANTZ GmbH.

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

A.11 HULL CERTIFICATION

A.11.1 A **certificate** shall record the following information:

(a) ONYX Class

(b) **Certification authority:** MNA (Swiss Sailing)

(c) Sail number

(d) Owner

(e) Hull identification

(f) Builder/Manufacturers details

(g) Hull weight, keel weight and corrector weights if any

(h) Date of issue of initial **Measurement Form**

(i) Date of registration of **certificate by the MNA**

A.12 INITIAL HULL CERTIFICATION

A.12.1 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.13 VALIDITY OF CERTIFICATE

A.13.1 A hull **certificate** becomes invalid upon:

(a) The change to any items recorded on the hull **certificate** as required under A.11.

(b) Withdrawal by the **certification authority**,

(c) The issue of a new **certificate**,

(d) Change of ownership.

A.14 HULL RE-CERTIFICATION

A.14.1 The **certification authority** may issue a **certificate** to a previously certified **hull**:

(a) When it is invalidated under A.13.1(a) or (d), after receipt of the old **certificate**, and **certification** fee if required.

(b) When it is invalidated under A.13.1 (b), at its discretion.

(c) In other cases, by application of the procedure in A.12.

A.15 RETENTION OF CERTIFICATION DOCUMENTATION

A.15.1 The **certification authority** shall:

(a) Retain a copy of the measurement form 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

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) The current RRS shall apply.

(b) The ERS Part I – Use of Equipment shall apply.

C.2 CREW

C.2.1 LIMITATIONS

(a) The number of **crew** members is not restricted as long as the maximum weight as stated below is not exceeded.

(b) No **crew** member shall be substituted during an event unless it is approved by the Race Committee

C.2.2 WEIGHTS

		maximum
The total weight of the **crew** dressed in underwear		300 kg

C.2.3. HIKING

(a) The balance point of each crew member shall be inside of the sheerline.

(b) Foot straps are only allowed for securing the sitting position as defined in C.2.3. (a) in dynamic boat movements, hiking is prohibited.

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

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

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance with the ISAF Advertising Code.

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

(a) Safety equipment

(b) One bucket of not less then 8 Litres

(c) One anchor of not less than 6 kg in weight and with not less than 30 m of line of not less than 8 mm in diameter

(d) One outboard engine of not less than 1.5 kW and not less than 11 kg. During racing the motor shall be stored in backward box in the centre of the cockpit. A minimum of 3 Litres fuel or the equivalent energy for alternative engines shall be on board.

C.5.2 OPTIONAL

(a) There are no restrictions on electronic devices.

C.6 BOAT

C.6.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Any major repair will need to be approved by the CM.

(b) Any modification and repair that differs from the original building specification will need written approval by the TC and will have to be approved by the CM after completion.

C.6.2 WEIGHT

(a) The minimum weight of the boat in dry condition is 950kg

The weight shall be taken with complete hull, all spars, standing and running rigging, lifting slings, one set of sheets, hatch and corrector weights.

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

C.6.3 CORRECTOR WEIGHTS

(a) **Corrector weights** shall be permanently fastened by laminating in the hull left and right to the keel box when the **boat** weight is less than the minimum requirement.

(b) The total weight of such **corrector weights** shall not exceed 20 kg.

C.7 HULL AND DECK

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

No modifications are permitted to the hull external surface and in particular no filling is permitted on any exterior surface of the hull or appendages, with the exception of routine maintenance which includes antifouling application, painting and minor repairs.

C.7.2 FITTINGS

(a) The choice of deck fittings is open except to the restrictions listed below:

(b) The jib-furling system shall be the same as the original supplied by the licensed builder.

(c) The main sheet track, the jib sheet track and the gennaker sheet blocks may not be removed or moved from the original position shown on the deck layout plan (APPENDIX A).

(d) The winches are optional.

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

No modifications are permitted to the outline or to the profiles of keel and rudder blade, with the exception of routine maintenance which includes antifouling application, painting and minor repairs.

C.8.2 POSITION OF KEEL

When racing, the keel shall be locked with the bolt in the low position.

C.8.3 WEIGHTS OF APPENDAGES

	minimum	maximum
	kg	kg
Keel	510	530
Rudder without tiller	7	no

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

No modifications are permitted. A major repair shall be reported to the CM and be noted in the MC.

C.9.2 MAST

(a) DIMENSIONS see APPENDIX “B”

C.9.3 BOOM

(a) DIMENSIONS see APPENDIX “B”

C.9.4 RETRACTING BOWSPRIT

(a) The bowsprit shall not extend more than 1950 mm measured from the centreline of the forestay at deck level.

(b) The bowsprit shall be at maximum flush with the bow when retracted.

(c) The bowsprit shall only be extended when setting, sailing or retrieving the gennaker

C.9.5 STANDING RIGGING

(a) DIMENSIONS see F.6.

All standing rigging shall meet the original specifications.

(b) It is not permitted to adjust the standing rigging during racing except the backstay.

(c) The backstay is part of the standing rigging.

(d) It is not permitted to add other stays, runners or other devices for rig control.

C.9.6 RUNNING RIGGING

(a) The diameters of the running rigging are free.

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 and minor repairs are permitted without re-measurement and re-**certification**.

C.10.2 LIMITATIONS

(a) Any sailmaker may be chosen.

(b) Any material may be chosen.

(c) Any batten pocket and windows may be chosen.

(d) The sails shall meet the measurements. See APPENDIX D

(e) During an event only one set of sails is allowed:

1 mainsail, 1 jib, 1 gennaker top, 1 gennaker 7/8 except when a **sail** has been lost or damaged beyond repair.

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**.

(b) USE

(1) The **sail** shall be hoisted on a halyard. The arrangement shall permit hoisting and lowering of the **sail** whilst afloat.

(2) **Luff** bolt rope-shall be in the **spar** groove.

C.10.4 JIB

(a) USE

(1) The **sail** shall be hoisted on a halyard. The arrangement shall permit hoisting and lowering of the **sail** whilst afloat.

C.10.5 GENNAKER

(a) USE

(1) The **sail** shall be hoisted on a halyard.

Section D – Hull and Deck

D.1 GENERAL

D.1.1 RULES

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

D.1.2 CERTIFICATION

See Rule A.11.

D.1.3 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The hull shell, deck, bulkheads 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 deck and bulkheads.

(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 C.8.1, an **official measurer** shall verify 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 **Measurement Form, if needed a new certificate shall be issued.**

D.1.4 DEFINITIONS

(a) HULL DATUM POINT

The **hull datum point** is AMP is specified in APPENDIX A.

*D.1.5 IDENTIFICATION

(a) The hull shall carry the ISAF Plaque permanently placed on the hatch bulkhead.

D.1.6 BUILDERS

(a) The hull shall be built by a builder licensed by CANTZ GmbH.

(b) All moulds shall be approved by CANTZ GmbH.

Section E – Hull Appendages

E.1 PARTS

(a) **Keel**

(b) **Rudder**

E.2 GENERAL

E.2.1 RULES

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

(b) The hull appendages shall be moulded in tooling approved by CANTZ GmbH.

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 antifouling application, painting and minor repairs are permitted without re-measurement and re-certification.

E.2.3 CERTIFICATION

(a) The **official measurer** shall **certify hull appendages**.

(b) The TC may appoint one or more persons at a manufacturer to measure and **certify hull appendages** produced by that manufacturer in accordance with the ISAF In-house Certification Guidelines.

E.3 KEEL

E.3.1 RULES

(a) Rules in E.2. apply.

E.3.2 MATERIALS

(a) The **keel** shall be of epoxy, structure in steel and bulb in lead.

E.3.3 SHAPE

(a) The outline and the profile of the keel shall meet the specifications described in the plan N° 2.1 of Th. Cantz.

E.3.4 WEIGHTS

The keel weight including keel and keel plate shall be as follows:

minimum	maximum
510 kg	530 kg

E.4 RUDDER BLADE, RUDDER STOCK AND TILLER

E.4.1 RULES

(a) Rules in E.2. apply.

E.4.2 MATERIALS

(a) The **rudder** blade, stock and tiller shall be made in accordance with the manufacturer's specifications.

E.4.3 CONSTRUCTION

(a) The **rudder** blade shall be manufactured in a mould approved by CANTZ GmbH.

E.4.4 SHAPE

(a) The outline and the profile of the rudder blade meet the specifications described in the plan N° 3.1 of Th. Cantz.

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

(a) **Mast**

(b) **Boom**

(c) **Bowsprit**

(d) Standing **rigging**

(e) Running **rigging**

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) The aluminium profiles for mast and boom spar section and the carbon fibre reinforced tube for the bowsprit are chosen by the copyright holder.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

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

(b) The spars shall meet the specifications described in the plan N° 4.2. No changes of the Young's modulus, the inertia or the profile of the spars are permitted.

F.2.3 CERTIFICATION

(a) The **official measurer** shall **certify spars.**

F.2.4 DEFINITIONS

(a) MAST DATUM POINT

The **mast datum point** is the aft under edge of the mast foot plate attached to the aluminium profile. See APPENDIX B.

F.2.5 MANUFACTURER

(a) The rig shall be built by a licensed builder approved by CANTZ GmbH.

F.3 MAST

F.3.1 MATERIALS

(a) The **spar** shall be of an alloy extrusion with minimum 90 per cent aluminium content.

F.3.2 CONSTRUCTION

(a) The **spar** shall be built as per the manufacturer's specification.

F.3.3 DIMENSIONS

	minimum	maximum
Mast length (profile)	11'550 mm	11'570 mm
Weight of profile	2.74 kg/m	
Mast spar cross section		
between 5mm and 9700mm ;		
fore-and-aft	124mm	126 mm
transverse	80mm	82 mm
Forestay height	9'090mm	9'110mm
Gennaker hoist height		11'450mm

F.4 BOOM

F.4.1 MATERIALS

(a) The **spar** shall be of an alloy extrusion with minimum 90 per cent aluminium content.

F.4.2 CONSTRUCTION

(a) The **spar** shall be built as per the manufacturer's specification.

F.4.3 DIMENSIONS

	minimum	maximum
Weight of profile	1.5 kg/m	
Boom spar cross section		
vertical	95 mm	136mm
transverse	65 mm	91 mm

F.5 BOWSPRIT

F.5.1 MATERIALS

(a) The **spar** shall be of carbon fibre reinforced plastic.

F.5.2 CONSTRUCTION

(a) The **spar** shall be built as per the manufacturer's specification.

F.5.3 DIMENSIONS

Dimensions shall be as per the manufacturer's specification and as stated in the measurement form.

F.6 STANDING RIGGING

F.6.1 MATERIALS

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

(b) The backstay may be of any material with a minimal breaking load of 9kN.

F.6.2 CONSTRUCTION

	minimum diameter
Forestay	4 mm
Main shroud under part	5 mm
Main shroud upper part	4 mm
Lower shroud	4 mm
Middle shroud	3 mm
Backstay diameter	3 mm

F.7 RUNNING RIGGING

F.7.1 MATERIALS

(a) The materials of the running rigging are free.

F.7.2 CONSTRUCTION

(a) The construction and diameters of the running rigging are free.

F.7.3 FITTINGS

(a) Fittings shall be as supplied by the manufacturer.

Section G – Sails

G.1 PARTS

G.1.1 MANDATORY

(a) Mainsail

(b) Headsail

G.1.2 OPTIONAL

(a) Gennaker 7/8

(b) Gennaker top

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 TC may appoint one or more persons at a sailmaker to measure and **certify sails** produced by that manufacturer in accordance with the ISAF In-house Certification Guidelines.

G.2.3 SAILMAKER

(a) No licence is required.

G.2.4 MATERIALS

(a) No restrictions about the materials and the weights of the sails.

G.2.5 REINFORCEMENTS

(a) Sail reinforcements are not restricted.

G.2.6 WINDOWS

(a) Sail windows are not restricted.

G.3 MAINSAIL

G.3.1 IDENTIFICATION

(a) The class insignia shall conform to the dimensions and requirements as detailed in the diagram contained in APPENDIX E and be placed on port and starboard between battens 2 and 3 from the top, starboard above port.

(b) The national letters and the sail number shall be according to RRS 77, Appendix G, except where varied herein: They shall be placed between battens 3 and 5 from top.

G.3.2 CONSTRUCTION

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

(b) The **sail** shall have 6 full battens from luff to leech

(c) The **sail** may be constructed so that it can be reefed.

G.3.3 DIMENSIONS

(a) The leech shall not be convex between the battens.

(b) The head curve shall not be convex.

(c) The mainsail shall be loose-footed.

	maximum
Leech length	11’100 mm
Half width	2’550 mm
Three-quarter width	1’850 mm
Top width	800 mm
Angle between the luff and the head	90°

G.4 HEADSAIL

G.4.2 CONSTRUCTION

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

(c) The headsail may have maximal 3 **batten pockets** in the **leech**.

(d) The headsail may have **batten pockets** in the **foot**.

(e) The headsail shall be furled completely up to the reinforcement on the clew.

(f) The curve of the foot is not restricted.

(g) The “Clew point” is defined in APPENDIX D

G.4.3 DIMENSIONS

	minimum	maximum
Luff length	-	9’550 mm
Leech length	8’450 mm	8’550mm
Quarter width	-	2’140mm
Half width	-	1’520mm
Three-quarter width	-	830mm
Top width	-	80mm
Luff perpendicular (LP)	-	2’680mm

G.5 GENNAKER

G.5.1 DIMENSIONS

	maximum
Luff length	13’800 mm
Leech lengths	12’100mm
Foot length	6’500 mm
Half width	6’600 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 APPENDIX A HULL DIMENSIONS

APPENDIX B SAILPLAN

APPENDIX C CORRECTOR WEIGHTS POSITIONS

APPENDIX D SAIL MEASUREMENTS

APPENDIX E CLASS INSIGNIA

Effective date: 30 November 2010

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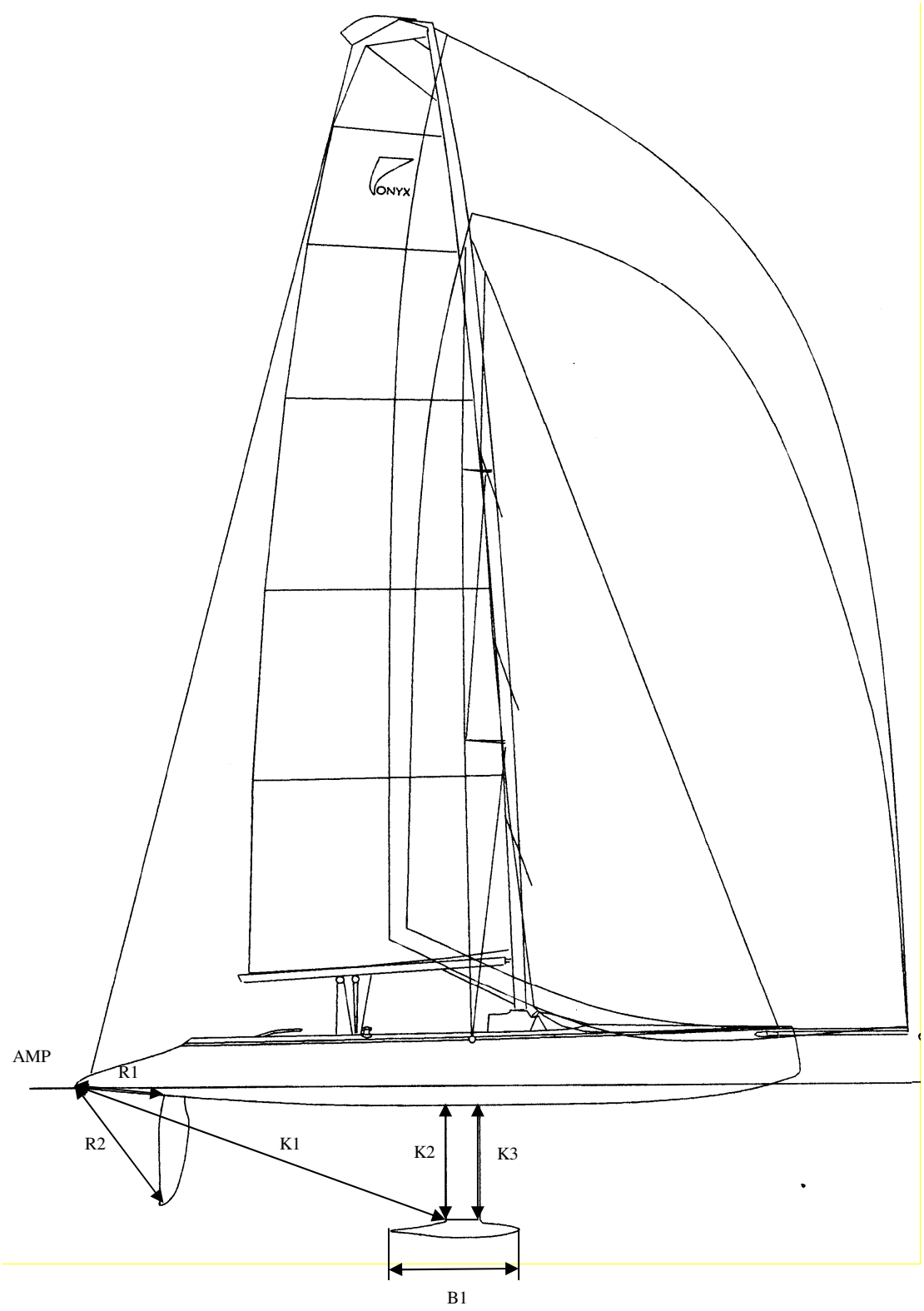
Previous issues:

APPENDIX A

Hull and appendages dimensions

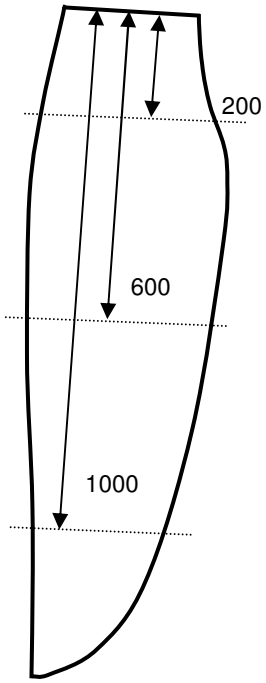


R1 = 1080 ± 5mm R2 = 1720 ± 10mm

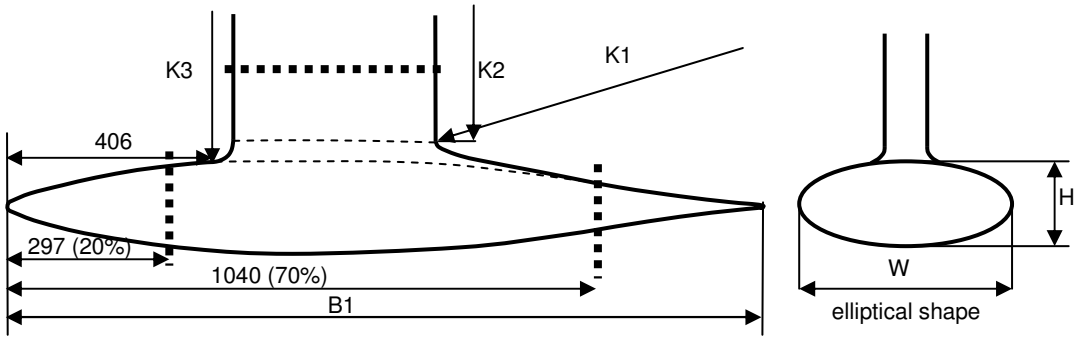
K1 = 4600 ± 15mm K2 = 1360 mm K3 = 1413 ± 5mm

B1 = max 1485mm

RUDDER – Templates positions



FIN and BULB – Templates positions



RUDDER TEMPLATES OFFSETS

200 mm

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
0	38	50	54	51.6	44.8	36	26.6	15.4	7.4	2

600 mm

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
0	35.6	46.4	51.3	51	46.2	38.2	28.1	17.3	7.6	2

1000 mm

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
0	25.8	33.4	36.9	36.7	33.3	27.6	20.5	12.8	6	2

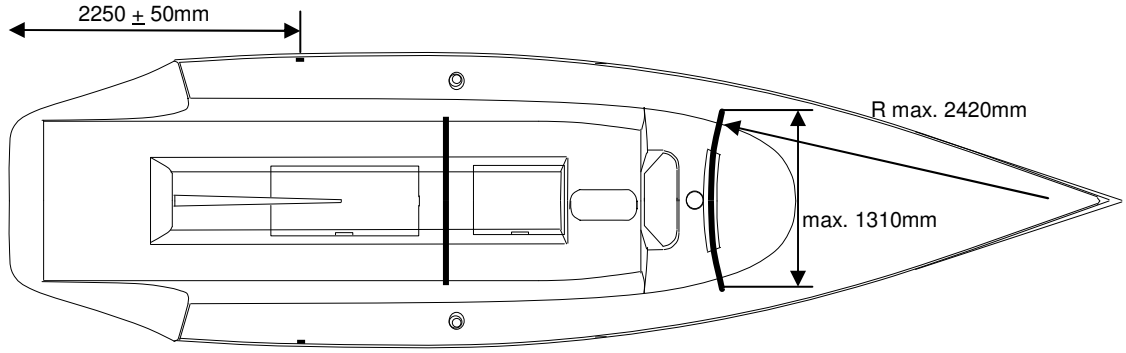
FIN TEMPLATE OFFSET

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
0	52	70.6	82	87.2	87.4	81.4	64.2	41.2	17.8	5

BULB TEMPLATES OFFSET

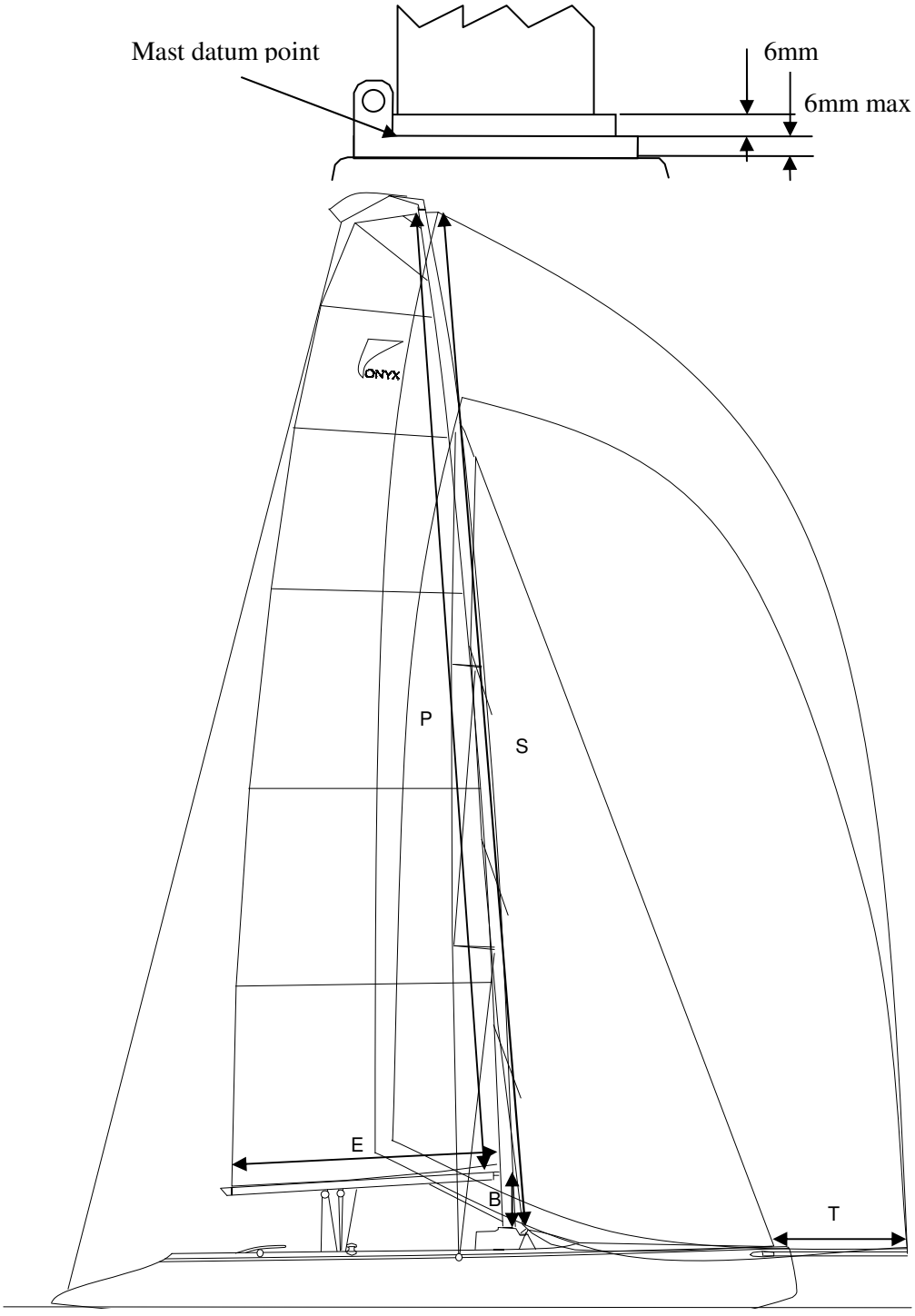
	10%	20%	50%	70%	90%
W	250	362	448	330	115
H	90	130	160	118	41

DECK

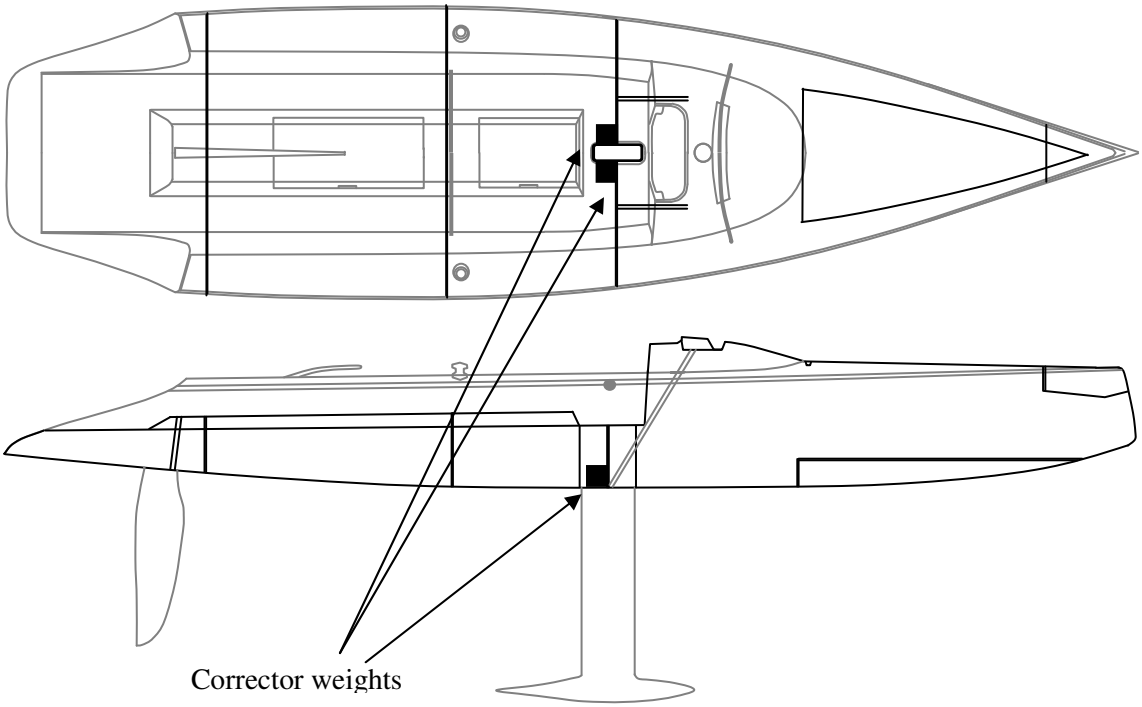


APPENDIX B SPARS

	minimum	maximum
P		10’750 mm
E		3’100 mm
B	590 mm	610 mm
S		11’450 mm
T		1’950 mm



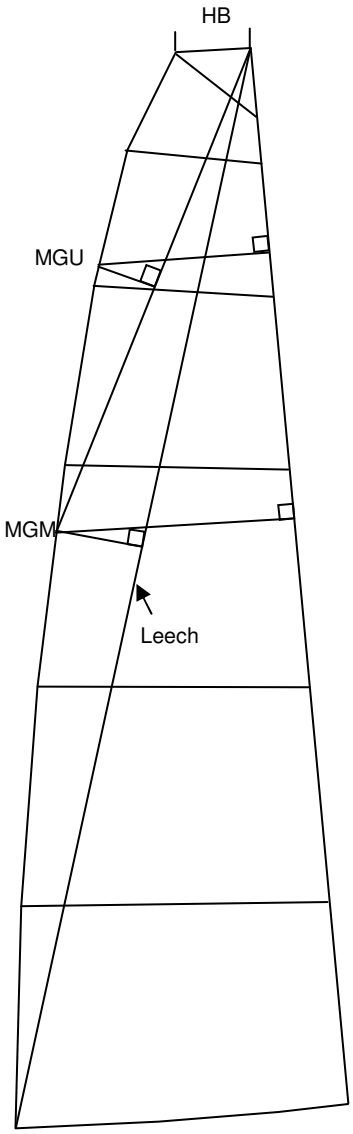
APPENDIX C Corrector weights positions



APPENDIX D
Sail measurements

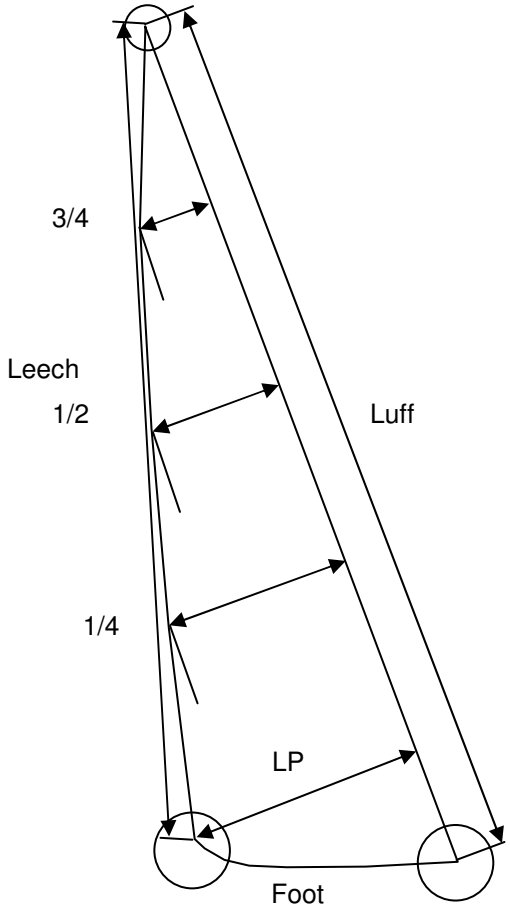
Mainsail

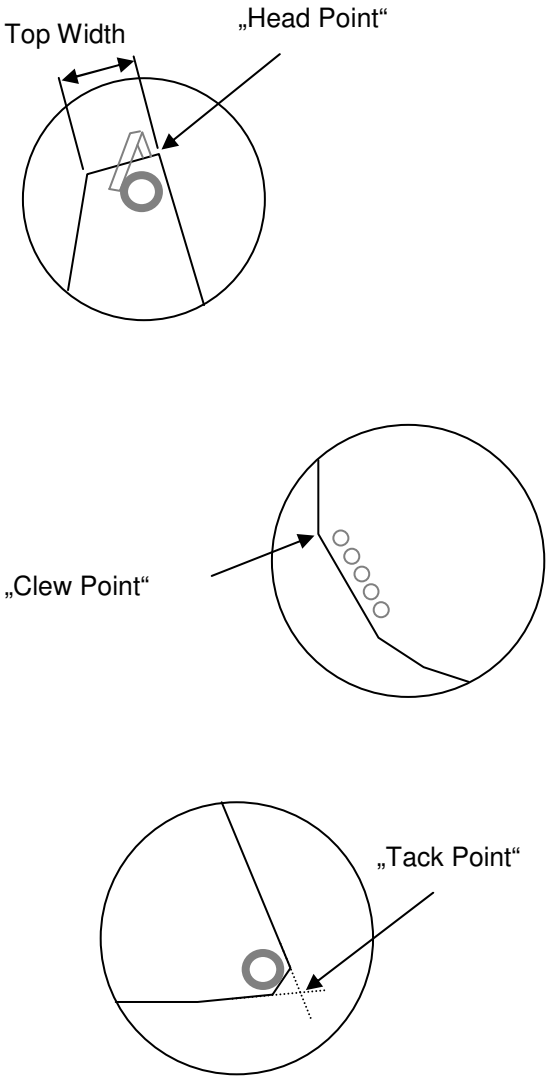
	maximum
HB	800 mm
MGU	1’850 mm
MGM	2’550 mm
Leech	11’100 mm



Jib

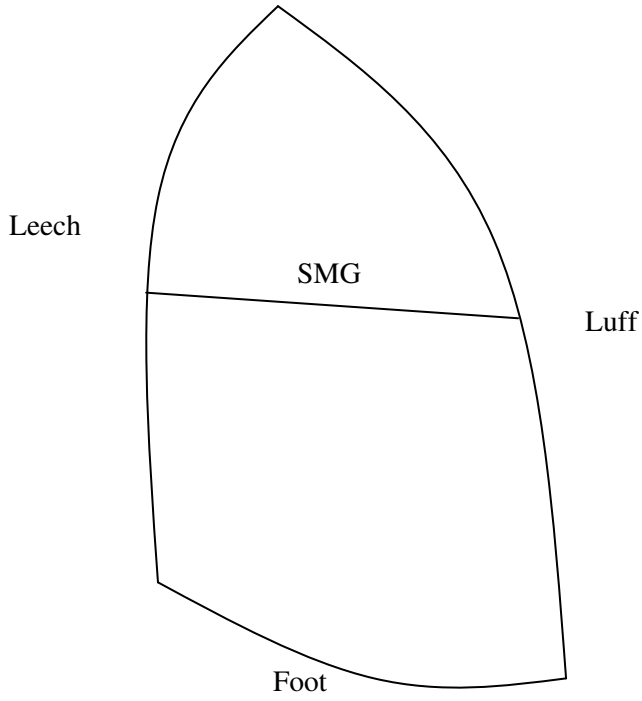
	minimum	maximum
Luff (IG)		9550 mm
Leech	8450 mm	8550 mm
LP		2680 mm
¼ Width		2140 mm
½ Width		1520 mm
¾ Width		830 mm
Top Width		80 mm





Gennaker

	maximum
Luff	13’800 mm
Leech	12’100 mm
Foot	6’500 mm
SMG	6’600 mm (mid luff to mid leech)



APPENDIX E
Class insignia