The
EQUIPMENT RULES
OF
SAILING
for
2005 – 2008

International Sailing Federation
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INTRODUCTION

The Equipment Rules of Sailing consists of three parts:

- Part I – Rules for use of the equipment. The boat – the sports equipment used in sail racing – and the personal equipment
- Part II – Equipment definitions
- Part III – Rules governing equipment control and inspection

Revision

The equipment rules are revised and published every four years by the International Sailing Federation, the international authority for the sport. This edition becomes effective on 1 January 2005. Changes to the equipment rules are permitted under ISAF Regulations 32.1.2 and 32.2. No changes are contemplated before 2009, but any changes determined to be urgent before then will be announced through national authorities and posted on the ISAF website - www.sailing.org.

Status

The ERS are adopted by ISAF as a code governing the use of equipment while racing. The ERS are made applicable as stated in Applicability, below:

Applicability

The ERS may be made applicable by:

(a) Class Rules.

(b) Adoption by a rating authority for racing under its jurisdiction.

(c) Adoption in the notice of race and sailing instructions for an event.

(d) Prescriptions of an MNA for racing under its jurisdiction.

(e) Other ISAF codes and rules adopted by Council.

Changes

The ERS may only be changed as follows:

(a) Prescriptions of an MNA may change an ERS rule, for racing under its jurisdiction.

(b) Sailing instructions may change an ERS rule by referring specifically to it and stating the change, but may not change any portion of the ERS adopted in class rules.

(c) A rating authority may change an ERS rule for racing within its jurisdiction.

(d) Class rules may change ERS rules B.7, B.9, H1, H2, H3, H.4, H5 and H.6.

These restrictions do not apply if rules are changed to develop or test proposed rules in local races. The MNA may prescribe that its approval is required for such changes.
Terminology
A term used in its defined sense is printed in “bold” type if defined in the ERS and in “italic” type if defined in the RRS.

Abbreviations
ISAF  International Sailing Federation
MNA  ISAF Member National Authority
ICA  International Class Association
NCA  National Class Association
ERS  The Equipment Rules of Sailing
RRS  The Racing Rules of Sailing

PART I – USE OF EQUIPMENT

Section A – During an Event

A.1 CLASS RULES

A.1.1 Boats without Class Rules
The boat and other items of equipment shall comply with the ERS Part I.

A.1.2 Boats with Class Rules
The boat and other items of equipment shall comply with its class rules, and the ERS Part I except as changed by its class rules to the extent permitted by Changes (c) or (d).

A.2 CERTIFICATE

A.2.1 Having a Certificate
The boat shall have such valid certificate as required by its class rules or the certification authority.

A.2.2 Compliance with a Certificate
The boat shall comply with its certificate.
See also RRS rule 78 Compliance with Class Rules; Certificates.

A.3 IDENTIFICATION ON SAILS
See RRS rule 77 Identification on Sails.

A.4 ADVERTISING
See RRS Appendices Section II, Appendix 1 – ISAF Advertising Code.

A.5 SKIN FRICTION
See RRS rule 53 Skin Friction.

A.6 EQUIPMENT INSPECTION
See RRS rule 78 Compliance with Class Rules; Certificates.

Section B – When Racing

B.1 PERSONAL BUOYANCY AND LIFE-SAVING EQUIPMENT
See RRS rule 1 Safety and RRS rule 40 Personal Buoyancy; Harnesses.

B.2 PERSONAL EQUIPMENT
See RRS rule 43 Competitor Clothing and Equipment.

B.3 LIMITATIONS ON EQUIPMENT
See RRS rule 47 Limitations on Equipment and Crew.
B.4 LIMITATIONS ON CREW AND CREW POSITION

See RRS rule 47 Limitations on Equipment and Crew and RRS rule 49 Crew Position.

B.5 MANUAL POWER

See RRS rule 52 Manual Power.

B.6 EJECTING OR RELEASING OF SUBSTANCE

See RRS rule 53 Skin Friction.

B.7 SETTING OF SPARS

B.7.1 Mainsail, Foresail and Mizzen Booms set on a Mast

When the sail is set on the boom, the extension of the upper edge of the spar shall intersect the mast spar above the lower limit mark, with the boom on the mast spar centreplane and at 90° to the mast spar.

B.7.2 Headsail Booms

The fore end of the boom spar shall be approximately on the boat centreplane.

B.7.3 Spinnaker and Whisker Poles

See RRS rule 50 Setting and Sheetig Sails.

B.7.4 Bowsprits

The inner limit mark shall not be outboard the hull when the bowsprit is set.

B.8 SETTING OF RIGGING

B.8.1 Forestays

See RRS rule 54 Forestays and Headsail Tacks.

B.9 SETTING, SHEETING AND CHANGING SAILS

B.9.1 Trilateral Mainsails, Foresails and Mizzens

(a) The sail shall be below the mast upper limit mark.

(b) The leech, extended as necessary, shall intersect the upper edge of the boom spar forward of the outer limit mark.

(c) The foot of a loose footed sail, extended as necessary, shall intersect the mast spar above the lower limit mark.

B.9.2 Headsails

The tack of any headsail set on a bowsprit shall be attached aft of the outer limit mark.

See also RRS rule 54 Forestays and Headsail Tacks.

B.9.3 Spinnaker Stay sails and Mizzen Stay sails

The tack shall be inboard the sheerline.

See also RRS rule 50 Setting and Sheetig Sails.
B.10 CENTRE OF GRAVITY

B.10.1 Corrector weights shall be securely fixed.
See also RRS rule 51 Movable Ballast.

B.11 ANCHORING, MAKING FAST AND HAULING OUT
See RRS rule 45 Hauling Out;
Making Fast; Anchoring.

B.12 FOG SIGNALS AND LIGHTS
See RRS rule 48 Fog Signals and Lights.
PART II – DEFINITIONS

Section C – General Definitions

C.1 PERSONAL TERMS

C.1.1 Crew
A competitor, or team of competitors, that operates a boat.

C.1.2 Skipper
The crew member onboard who is in charge of the boat and the crew and all other persons aboard.

C.1.3 Personal Equipment
All personal effects carried or worn and items worn on board to keep warm and/or dry, and/or to protect the body, personal buoyancy, safety harnesses and hiking aids worn to keep the person aboard or afloat.

C.1.4 Personal Buoyancy
A device worn around the upper part of the torso capable of keeping a person afloat.

C.2 BOAT TERMS

C.2.1 Boat
The sports equipment used by the crew to take part in a race. It comprises:
- hull(s)
- hull appendage(s)

ballast
rig
sail(s)
associated fittings
all other items of sports equipment used excluding consumables and personal equipment

C.2.2 Sailboard
A boat.

C.2.3 Major Axes
The three major axes of the boat at 90° to each other – vertical, longitudinal and transverse – shall be related to the waterplane with the boat in measurement trim and the hull centreplane. See H.3.

C.2.4 Boat Length
The longitudinal distance between the aftermost point and the foremost point on the boat with sails and spars set as appropriate. See H.3.4.

C.2.5 Ballast
Weight installed to influence the stability, flotation or total weight of the boat. It can be of any material and positioned anywhere in the boat.

C.2.6 Corrector Weight
Weight installed in accordance with the class rules to correct
deficiency in weight and/or its distribution.

C.2.7 Limit Mark
A clearly visible mark of a single colour, contrasting to the part(s) on which it is placed, indicating a measurement point.

C.2.8 Event Limitation Mark
A mark placed by a race committee on equipment whose replacement at the event is controlled by the class rules.

C.3 RULES

C.3.1 Class Rules
The rules that specify the boat as it shall be used for racing.

C.3.2 Closed Class Rules
Class rules where anything not specifically permitted by the class rules is prohibited.

C.3.3 Open Class Rules
Class rules where anything not specifically prohibited by the class rules is permitted.

C.4 EQUIPMENT CONTROL AND INSPECTION
See H.1 and H.2.

C.4.1 Fundamental Measurement
The control methods used as the primary means to establish the physical properties of equipment.

C.4.2 Certification Control
Control for certification required by class rules, or a certification authority, which may include fundamental measurement.

C.4.3 Equipment Inspection
Control carried out at an event as required by the notice of race and the sailing instructions which may include fundamental measurement.

C.4.4 Official Measurer
A person appointed or recognised, by the MNA of the country where the control takes place, to carry out certification control.

C.4.5 Equipment Inspector
A person appointed by a race committee to carry out equipment inspection.

C.4.6 International Measurer
A person authorised by the ISAF to inspect prototype boats of specific ISAF classes and recognised by ISAF as qualified to assist in equipment inspection at international events for those classes.

C.5 CERTIFICATION

C.5.1 Certification Authority
For the hull, the ISAF, the MNA of the owner, or their delegates.
For other items, the ISAF, the MNA in the country where the certification shall take place, or their delegates.
C.5.2 Certify
To issue a certificate, or to attach a certification mark after successful certification control.

C.5.3 Certificate
Documentary proof, issued by the certification authority, of successful certification control of the hull, or any other parts required by the class rules or a certification authority.

C.5.4 Certification Mark
Proof of successful certification control of a part requiring certification, attached or made by an official measurer.

Section D – Hull Definitions

D.1 TERMS

D.1.1 Hull
The shell including any transom, the deck including any superstructure, the internal structure including any cockpit, the fittings associated with these parts and any corrector weights.

D.1.2 Sheerline
The line formed by the intersection of the top of the deck and the outside of the hull shell, each extended as necessary.

D.1.3 Sheer
The projection of the sheerline on the centreplane.

D.2 MEASUREMENT POINTS

D.2.1 Hull Datum Point
The point on the hull centreplane specified in the class rules from which hull measurements are taken.

D.3 DIMENSIONS

D.3.1 Hull Length
The longitudinal distance between the aftermost point and the foremost point on the hull(s), excluding fittings.
See H.3.4.
D.4 WEIGHT
D.4.1 Hull Weight
The weight of the hull.

Section E – Hull Appendage Definitions

E.1 TERMS

E.1.1 Hull Appendage
Any item of equipment – including the items listed at E.1.2 to E.1.13 – which is wholly or partly below the sheerline or its extension when fixed or when fully exposed if retractable, attached to the hull shell or another hull appendage, and used to affect: stability, leeway, steerage, directional stability, motion damping, trim, displaced volume. Any of the following shall be included in the hull appendage: corrector weights integral ballast associated fittings

E.1.2 Keel
A fixed hull appendage, attached approximately on the hull centreplane, primarily used to affect stability and leeway.

E.1.3 Bilge Keel
A fixed hull appendage, attached off the hull centreplane, primarily used to affect stability and leeway.

E.1.4 Fin
A fixed hull appendage primarily used to affect leeway or directional control.

E.1.5 Bulb
A hull appendage containing ballast at the bottom of another hull appendage primarily used to affect stability.

E.1.6 Skeg
A fin attached immediately in front of a rudder.

E.1.7 Centreboard
A retractable hull appendage, attached approximately on the hull centreplane and rotating about a single transverse axis which may move in relation to the hull, primarily used to affect leeway.

E.1.8 Daggerboard
A retractable hull appendage, attached approximately on the hull centreplane and not rotating, primarily used to affect leeway.

E.1.9 Bilgeboard
A retractable hull appendage, attached off the hull centreplane, primarily used to affect leeway.

E.1.10 Rudder
A movable hull appendage primarily used to affect steerage.
E.1.11 Trim Tab
When a rudder(s) is used, a movable hull appendage, attached at the aft, or fore, edge of another hull appendage.

Section F – Rig Definitions
Definitions relating to:
“BOOM” also apply to “Gaff” and “Sprit”
“SPINNAKER POLE / WHISKER POLE” also apply to “Jockey Pole”
“BOWSPRIT” also apply to “Bumpkin”

F.1 GENERAL TERMS
F.1.1 Rig
The spars, spreaders, rigging, fittings and any corrector weights.
F.1.2 Spar
The main structural part(s) of the rig, to, or from, which sails are attached and/or supported.
F.1.3 Spreader
Any equipment attached at one or both ends to spars, sails or other rigging and capable of working in compression.
F.1.4 Rigging
Any equipment attached at one or both ends to spars, sails or other rigging and capable of working in tension only.

F.2 LIMIT MARK DIMENSIONS
F.2.1 Limit Mark Width
The minimum width measured in the length direction of the spar.

F.3 FORETRIANGLE DIMENSIONS
F.3.1 Foretriangle Base
The longitudinal distance between the intersection of the fore side of the mast spar, extended as necessary, and the deck including any superstructure, and the intersection of the centreline of the forestay, extended as necessary, and the deck, or bowsprit spar.
See H.3.4.

F.3.2 Foretriangle Height
The distance between the intersection of fore side of the mast spar, extended as necessary, and the deck including any superstructure, and the forestay rigging point.
See H.4.
F.4 MAST TERMS

F.4.1 Mast
The spar, its rigging, spreaders, fittings and any corrector weights, excluding any fittings that are not essential to the function of the mast as part of the rig.

F.5 MAST MEASUREMENT POINTS

F.5.1 Mast Datum Point
The point on the mast specified in the class rules used as a datum for measurement.

F.5.2 Heel Point
The lowest point on the spar and its fittings.

F.5.3 Top Point
The highest point on the spar and its fittings.

F.5.4 Lower Point
The highest point of the lower limit mark at the aft edge of the spar.

F.5.5 Upper Point
The lowest point of the upper limit mark at the aft edge of the spar.

F.6 MAST LIMIT MARKS

F.6.1 Lower Limit Mark
The limit mark for the setting of a boom spar or sail.

F.6.2 Upper Limit Mark
The limit mark for the setting of a sail.

F.7 MAST DIMENSIONS
See H.3.
F.7.1 Mast Length
The distance between the heel point and the top point.

F.7.2 Lower Point Height
The distance between the mast datum point and the lower point.

F.7.3 Upper Point Height
The distance between the mast datum point and the upper point.

F.7.4 Rigging Point
When rigging is attached:

BY HOOK TERMINAL:
The lowest point of the hook where it intersects the spar, extended if necessary.

BY TANG WITH BOLT:
The lowest point of the spar bolt where it intersects the spar.

IN OTHER WAYS: The intersection of the outside of the spar, extended if necessary, and the centreline of the rigging.

F.7.5 Forestay Height
The distance between the mast datum point and the rigging point.
F.7.6 Shroud Height
The distance between the mast datum point and the rigging point.

F.7.7 Back Stay Height
The distance between the mast datum point and the rigging point or the top point whichever is the lowest.

F.7.8 Check Stay Height
The distance between the mast datum point and the rigging point.

F.7.9 Trapeze Height
The distance between the mast datum point and the rigging point.

F.7.10 Spinnaker Hoist Height
The distance between the mast datum point and the intersection of the spar and the lower edge of the spinnaker halyard, when at 90° to the spar and extended as necessary.

F.7.11 Mast Spar Curvature
The greatest distance between the spar and a straight line from the upper point to the lower point.
taken at 90° to the straight line when the **spar** is resting on one side.

**F.7.12 Mast Spar Deflection**

The difference in distance, at a specified distance from the **mast datum point**, between the **spar** and a straight line from the **upper point** to the **lower point** taken at 90° to the straight line with and without a specified load at the specified distance when the **spar** is horizontal at and supported at these points.

(a) **FORE-AND-AFT:** Measured with the aft edge up.

(b) **TRANSVERSE:** Measured with the one side up.

See H.4.5.

**F.7.13 Mast Spar Cross Section**

(a) **FORE-AND-AFT:** The fore-and-aft dimension, including any **sail** track, at a specified distance from the **mast datum point**.

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**Mast Spar Deflection**

*Spar deflection = B - A*

A distance specified in **class rules**

**Mast datum point**

**Upper point**

**Lower point**

**Mast spar**
(b) TRANSVERSE: The transverse dimension, at a specified distance from the mast datum point.

F.7.14 Mast Spar Weight
The weight of the spar including fittings and corrector weights.

F.7.15 Mast Weight
The weight of the mast.

F.7.16 Mast Tip Weight
The weight of the mast measured at the upper point when the spar is supported at the lower point.
See H.4.6.

F.8 MAST FITTINGS

F.8.1 Spreader
(a) LENGTH: The distance between the inner edge of the shroud at the lower edge of the spreader and the intersection of the lower edge of the spreader, extended as necessary, and the spar.

(b) HEIGHT: The distance between mast datum point and the intersection of the lower edge of the spreader, extended as necessary, and the spar.

F.8.2 Spinnaker Pole Fitting
(a) HEIGHT: The distance between the mast datum point and the centre of the highest bearing part of the fitting.
(b) PROJECTION: The shortest distance between the outermost point of the fitting and the spar.

F.9 BOOM TERMS

F.9.1 Boom
The spar, its rigging, fittings and any corrector weights, but excluding sheets, sheet blocks and kicking strap/strut arrangement.

F.10 BOOM MEASUREMENT POINTS

F.10.1 Outer Point
The point on the boom outer limit mark, at the upper edge of the spar, nearest the fore end of the spar.

F.11 BOOM LIMIT MARKS

F.11.1 Outer Limit Mark
The limit mark for the setting of the mainsail.

F.12 BOOM DIMENSIONS
See H.3.

F.12.1 Outer Point Distance
The distance between the outer point and the aft edge of the mast spar, with the boom spar on the mast spar centreplane and at 90° to the mast spar.

F.12.2 Boom Spar Curvature
The greatest distance between the spar and a straight line from the outer point to the top of the fore end of the spar taken at 90° to the straight line when the spar is resting on one side.
F.12.3 Boom Spar Deflection

The difference in distance, at a specified distance from the outer point, between
the spar and a straight line from the outer point to the top of the fore end of the spar
taken at 90° to the straight line and with and without a specified load at the specified distance when the spar is horizontal and supported at these points.

(a) VERTICAL: Measured with the top edge up.
(b) TRANSVERSE: Measured with one side up.

See H.4.5

F.12.4 Boom Spar Cross Section

(a) VERTICAL: The vertical dimension, including any sail track, at a specified distance from the outer point.
(b) TRANSVERSE: The transverse dimension at a specified distance from the outer point.

F.12.5 Boom Weight
The weight of the boom.

F.13 SPINNAKER/WHISKER POLE TERMS
F.13.1 Spinnaker/Whisker Pole
The spar, its fittings, bridle arrangement(s), end fitting control lines and any corrector weights.

F.14 SPINNAKER/WHISKER POLE DIMENSIONS
See H.3.

F.14.1 Spinnaker/Whisker Pole Length
The distance between the ends of the spinnaker/whisker pole.

F.14.2 Spinnaker/Whisker Pole Spar Cross Section
The sectional dimensions at specified distances from an end of the spinnaker/whisker pole.

F.14.3 Spinnaker/Whisker Pole Weight
The weight of the spinnaker/whisker pole.

F.15 BOWSPRIT TERMS
F.15.1 Bowsprit
The spar, fittings and any corrector weights.

F.16 BOWSPRIT MEASUREMENT POINTS
F.16.1 Bowsprit Inner Point
The point of the bowsprit inner limit mark, at the upper edge of the spar, nearest the outboard end of the spar.

F.16.2 Bowsprit Outer Point
The point of the bowsprit outer limit mark, at the upper edge of the spar, nearest the inner end of the spar, or the outboard end of the spar when there is no outer limit mark.

F.17 BOWSPRIT LIMIT MARKS
F.17.1 Bowsprit Inner Limit Mark
The limit mark for the setting of the spar.
F.17.2 Bowsprit Outer Limit Mark
The limit mark for the setting of the headsail.

F.18 BOWSPRIT DIMENSIONS
See H.3.

F.18.1 Bowsprit Point Distance
The distance between the bowsprit inner point and the bowsprit outer point.

F.18.2 Bowsprit Spar Cross Section
The sectional dimensions at specified positions.

F.18.3 Bowsprit Weight
The weight of the bowsprit.

Section G – Sail Definitions

Subsection A – Trilateral Sails
Definitions relating to:
“MAINSAIL” also apply to “Foresail” and “Mizzen”
“HEADSAIL” also apply to “Jib”, “Genoa”, “Gennaker” and “Stay sail”

G.1 GENERAL SAIL TERMS

G.1.1 Sail
An item of equipment attached to the rig, used to propel the boat including any of the following added parts when they are present:
sail reinforcements
batten pockets
windows
stiffening
tabling
attachments
other parts as permitted by class rules

G.1.2 Body of the Sail
The sail excluding the areas where parts are added as per G.1.1.

G.1.3 Ply
A sheet of sail material.

G.1.4 Soft Sail
A sail where the body of the sail is capable of being folded flat in any direction without damaging any ply other than by creasing.

G.1.5 Woven Ply
A ply which, when torn, can be separated into fibres without leaving evidence of a film.

G.1.6 Laminated Ply
A ply made up of more than one layer.
G.1.7  Single-Ply Sail
A sail, except at seams, where all parts of the body of the sail consist of only one ply.

G.1.8  Double Luff Sail
A sail with more than one luff, or a sail passing around a stay or spar and attached back on itself.

G.1.9  Seam
Overlap where two or more ply forming the body of the sail are joined.

G.1.10  Tabling
Additional ply or folded ply overlap(s) at a sail edge.

G.1.11  Batten Pocket
Additional ply to form a pocket for a batten.

G.1.12  Sail Opening
Any opening other than openings created by attachments or batten pockets.

G.1.13  Window
Transparent ply covering a sail opening.

G.1.14  Stiffening
Corner boards and battens.

G.1.15  Attachments
Bolt ropes tablings that surround, or are fixed to, bolt ropes luff wires including any cringles and seizing cringles

straps
hanks
slides
adjustment eyes
adjustment points
reefing eyes
reefing points
blocks and their fastenings

See H.5.3.

G.2  SAIL EDGES

G.2.1  Foot
The bottom edge.

G.2.2  Leech
(a) MAINSAIL and HEADSAIL: The aft edge.
(b) SPINNAKER: The edges other than the foot.

G.2.3  Luff
MAINSAIL and HEADSAIL: The fore edge(s).

G.3  SAIL CORNERS

G.3.1  Clew
The area where the foot and the leech meet.

G.3.2  Head
The area at the top.

G.3.3  Tack
The area where the luff and the foot meet.
G.4 SAIL CORNER MEASUREMENT POINTS

G.4.1 Clew Point
The intersection of the foot and the leech, each extended as necessary.

G.4.2 Head Point
(a) MAINSAIL: The intersection of the luff, extended as necessary, and the line through the highest point of the sail at 90° to the luff.
(b) HEADSAIL: The intersection of the luff, extended as necessary, and the line through the highest point of the sail, excluding attachments, at 90° to the luff.

(c) SPINNAKER: The intersection of the leeches, extended as necessary.

G.4.3 Tack Point
The intersection of the foot and the luff, each extended as necessary.

G.5 OTHER SAIL MEASUREMENT POINTS

G.5.1 Quarter Leech Point
The point on the leech equidistant from the half leech point and the clew point.
G.5.2 Half Leech Point
The point on the leech equidistant from the head point and the clew point.

G.5.3 Three-Quarter Leech Point
The point on the leech equidistant from the head point and the half leech point.

G.5.4 Upper Leech Point
The point on the leech a specified distance from the head point.

G.5.5 Aft Head Point
The intersection of the leech extended as necessary and the line through the head point at 90° to the luff.
G.5.6 Mid Foot Point

(a) MAINSAIL and HEADSAIL: The point on the foot equidistant from the tack point and the clew point.
(b) SPINNAKER: The point on the foot equidistant from the clew points.

G.6 SAIL REINFORCEMENT

G.6.1 Primary Reinforcement

An unrestricted number of additional layers of ply of permitted material:

- at a corner
- at a adjustment point
- at a reefing point adjacent to the luff
- at a reefing point adjacent to the leech
- at a sail recovery point
- where permitted by the class rules

G.6.2 Secondary Reinforcement

Not more than two additional layers of ply of permitted material each not thicker than the maximum thickness of the ply of the body of the sail:

- at a corner
- at an adjustment point
- at a reefing point adjacent to the luff
- at a reefing point adjacent to the leech
- at a sail recovery point
- to form a flutter patch
- to form a chafing patch
- to form a batten pocket patch
- where permitted by the class rules

G.6.3 Batten Pocket Patch

Secondary reinforcement at the inner end of a batten pocket.

G.6.4 Chafing Patch

Secondary reinforcement where a sail can touch a spreader, stanchion, shroud or spinnaker pole.

G.6.5 Flutter Patch

Secondary reinforcement on the leech or the foot at the end of a seam.

G.7 PRIMARY SAIL DIMENSIONS

See H.5.

G.7.1 Foot Length

(a) MAINSAIL and HEAD-SAIL: The distance between the clew point and the tack point.
G.7.2 Leech Length
The distance between the head point and the clew point.

G.7.3 Luff Length
The distance between the head point and the tack point.

G.7.4 Quarter Width
(a) MAINSAIL and HEADSAIL: The shortest distance between the quarter leech point and the luff.
(b) SPINNAKER: The distance between the quarter leech points.

G.7.5 Half Width
(a) MAINSAIL and HEADSAIL: The shortest distance between the half leech point and the luff.
(b) SPINNAKER: The distance between the half leech points.

G.7.6 Three-Quarter Width
(a) MAINSAIL and HEADSAIL: The shortest distance between the three-quarter leech point and the luff.
(b) SPINNAKER: The distance between the three-quarter leech points.

G.7.7 Upper Width
(a) MAINSAIL and HEADSAIL: The shortest
distance between the upper leech point and the luff.

(b) SPINNAKER: The distance between the upper leech points.

G.7.8 Top Width
The distance between the head point and the aft head point.

G.7.9 Diagonal
(a) SPINNAKER: The distance between a clew point and the opposite half leech point.

G.7.10 Foot Median
The distance between the head point and the mid foot point.
G.7.11 Luff Perpendicular
(a) MAINSAIL and HEADSAIL: The shortest distance between the clew point and the luff.

G.8 OTHER SAIL DIMENSIONS
See H.5.

G.8.1 Batten Pocket Length
(a) INSIDE: The distance between the sail edge and the internal extreme end of the batten pocket, measured parallel to the pocket centreline. The effect of any elastic or other retaining device shall be ignored.
(b) OUTSIDE: The distance between the sail edge and the external extreme end of the batten pocket, measured parallel to the pocket centreline.

G.8.2 Batten Pocket Width
(a) INSIDE: The greatest distance between inside edges of the batten pocket measured at 90° to pocket
centreline. Local widening for batten insertion shall be ignored.

(b) OUTSIDE: The greatest distance between the outside edges of the batten pocket measured at 90° to the pocket centreline. Local widening for batten insertion shall be ignored.

G.8.3 Foot Irregularity

The maximum distance between the edges of the foot when first the tack point and then the clew point are superimposed on any part of the foot.

G.8.4 Reinforcement Size

(a) AT A CORNER: The greatest dimension of the sail reinforcement from a sail corner measurement point.

(b) ELSEWHERE: The greatest dimension of the sail reinforcement.
G.8.5 Seam Width

The width of a seam measured at 90° to the seam.

G.8.6 Tabling Width

The width of a tabling measured at 90° to the sail edge.

G.8.7 Attachment Size

(a) AT A CORNER OR AN EDGE

(1) LENGTH

AT THE HEAD: The dimension from the head point along the luff or its extension to a line through the highest point of the attachment at 90° to the luff.

AT THE TACK: The dimension from the tack point along the luff or its extension to a line through the lowest point of the attachment at 90° to the luff.

AT THE CLEW: The greatest dimension from the clew point.

AT AN EDGE: The greatest dimension from the sail edge.

(b) ELSEWHERE

The greatest dimension of the attachment.

(2) WIDTH

The greatest dimension measured perpendicular to the length.
Subsection B – Additions for Other Sails

The following definitions for other sails, e.g. “Gaff Sails”, “Lugsails” and “Sprit-sails”, are additional to or vary those given in Subsection A of this Section.

G.2 SAIL EDGES

G.2.4 Head
The top edge.

G.3 SAIL CORNERS

G.3.4 Peak
The area where the head and the leech meet.

G.3.5 Throat
The area where the head and the luff meet.

G.4 SAIL CORNER MEASUREMENT POINTS

G.4.4 Peak Point
The intersection of the head and leech, each extended as necessary.

G.4.5 Throat Point
The intersection of the head and luff, each extended as necessary.

G.5 OTHER SAIL MEASUREMENT POINTS

G.5.2 Half Leech Point
The point on the leech equidistant from the peak point and the clew point.

G.5.3 Three-Quarter Leech Point
The point on the leech equidistant from the peak point and the half leech point.

G.5.4 Upper Leech Point
The point on the leech a specified distance from the peak point.
G.7 PRIMARY SAIL DIMENSIONS
See H.5.

G.7.2 Leech Length
The distance between the peak point and the clew point.

G.7.3 Luff Length
The distance between the throat point and the tack point.

G.7.9 Diagonal
The distance between the throat point and the clew point.

G.7.10 Foot Median
The distance between the peak point and the mid foot point.

G.7.12 Head Length
The distance between the peak point and the throat point.
PART III – RULES GOVERNING EQUIPMENT CONTROL AND INSPECTIONS

Section H – Equipment Control and Inspection

H.1 CERTIFICATION CONTROL

H.1.1 An official measurer shall not carry out certification control of any part of a boat owned, designed or built by himself, or in which he is an interested party, or has a vested interest, except where permitted by the MNA.

H.1.2 If an official measurer is in any doubt as to the application of, or compliance with, the class rules he shall consult the certification authority before signing a certification control form or attaching a certification mark.

H.1.3 An official measurer shall only carry out certification control in another country with the prior agreement of the MNA for that country.

H.2 EQUIPMENT INSPECTION

H.2.1 If an equipment inspector is in any doubt as to the application of, or compliance with, the class rules, the question should be referred to the certification authority in the country where the event takes place, which if in doubt shall consult the authority responsible for interpreting the class rules.

H.3 AXES OF MEASUREMENT

H.3.1 For a boat, unless otherwise specified, words such as “fore”, “aft”, “above”, “below”, “height”, “depth”, “length”, “beam”, “freeboard”, “inboard” and “outboard” shall be taken to refer to the boat in measurement trim. All measurements denoted by these, or similar words, shall be taken parallel to one of the three major axes.

H.3.2 For a component, unless otherwise specified, width, thickness, length etc. shall be measured as appropriate for that component, if relevant without reference to the major axes.

H.3.3 Unless otherwise specified, measurements shall be the shortest distance between the measurement points.

H.3.4 Unless otherwise specified, longitudinal measurements shall be taken parallel to the longitudinal major axis.
H.4  RIG MEASUREMENT

H.4.1 Measurements in the length direction shall be taken along the spar at the side relevant for the measurement and between planes through the measurement points at 90° to the spar.

H.4.2 Fittings, local curvature and local cut away, shall be ignored when measuring a spar or dimensions taken to a spar.

H.4.3 No external pressure shall be applied to a spar when measuring unless specifically prescribed.

H.4.4 Adjustable fittings shall be set in the position that gives the greatest value when the measurement is taken.

H.4.5 Mast spar deflection and boom spar deflection shall be checked with free ends of rigging not supported by the spar.

H.4.6 Mast tip weight shall be checked with any halyards fully hoisted and rigging tied to the spar at the lower limit mark with lower ends hanging free or resting on the ground.

H.5  SAIL MEASUREMENT

H.5.1 Conditions of Sail

The sail shall:
- be dry
- not be attached to spars or rigging
- have all battens removed
- have pockets of any type flattened out
have just sufficient tension applied to remove wrinkles across the line of the measurement being taken, and have only one measurement taken at a time.

H.5.2 Hollows in Sail Edges
Where the sail edge is hollow and a measurement point falls in the hollow:
- between adjacent batten pockets
- between the aft head point and adjacent batten pocket
- between the clew point and adjacent batten pocket
- between the tack point and adjacent batten pocket

at an attachment

the sail shall be flattened out in the area of the sail edge, the hollow shall be bridged by a straight line and the shortest distance from the measurement point to the straight line shall be measured. This distance shall be added to the measurement being taken.

H.5.3 Excluding Attachments
Attachments at a sail edge, other than a bolt rope and tabling, shall be ignored when measuring.

H.6 CHECKING MATERIALS
Unless specifically prescribed by the class rules, materials are not subject to certification control.
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