

Equipment Rules of Sailing 2009-2012

A submission from the Chairman of the Equipment Committee

Proposal:

To adopt the proposed amendments and additions for the ERS 2009-2012

Reason:

The proposed amendments and additions are to make the ERS clearer and more comprehensive.

Rig and Sail definitions are considerably expanded with rig types, standing and running rigging types, spar types and sail types.

A term in “**bold**” type used as defined in the ERS.

Section B – When Racing

B.1 ~~PERSONAL BUOYANCY~~ FLOTATION DEVICES AND LIFE-SAVING EQUIPMENT

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~~ a **main boom, foremast boom or mizzen boom**, the extension of the upper edge of the **spar** shall intersect the mast **spar** above the **lower limit mark**, with the boom **spar** on the mast **spar** centreplane and at 90° to the mast **spar**.

B.9 SETTING, SHEETING AND CHANGING SAILS

B.9.2 Headsails

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

B.9.3 Staysails

When a **staysail** is set the **luff**, extended as necessary, shall be at approximately constant distance from the **stay** along its length.

B.9.4 Spinnaker Staysails and Mizzen Staysails

Section C – General Definitions

C.1 CLASS

C.1.1 Class Authority

The body that governs the class as specified in the **class rules**.

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~~ flotation device**, safety harnesses and hiking aids worn to keep the person aboard or afloat.

C.2 RULES

C.2.1 Class Rules

The rules that specify:

the ~~boat as it shall be used for racing~~ and its use, **certification** and administration.

the **crew**.

the **personal equipment** and its use, **certification** and administration.

any other equipment and its use, **certification** and administration.

changes to the Racing Rules of Sailing concerning the **boat, crew, personal equipment** and other equipment.

C.2.2 Closed Class Rules

C.2.3 Open Class Rules

C.2.4 Class Rules Authority

The body that approves the **class rules, class rule** changes and **class rule** interpretations.

C.3 CERTIFICATION

C.3.1 Certification Authority

C.3.2 Certify

C.3.3 Certificate

C.3.4 Certification Mark

C.4 ~~EQUIPMENT~~ CERTIFICATION CONTROL AND EQUIPMENT INSPECTION

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** and, when **class rules** permit, **certification**.

C.4.5 In-house Official Measurer

An **official measurer** appointed in accordance with the ISAF In-house Certification Programme.

C.4.6 Equipment Inspector

C.4.7 International Measurer

C.4.8 Limit Mark

C.4.9 Event Limitation Mark

C.5 ~~PERSONAL TERMS~~ DEFINITIONS

C.5.1 Crew

C.5.2 Skipper

C.5.3 Personal Equipment

C.5.4 Personal ~~Buoyancy~~ Flotation Devices

C.6 ~~PERSONAL TERMS~~ DEFINITIONS

C.6.1 Boat

The sports equipment used by the **crew** to take part in a race. It comprises:

hull(s)

structure(s) connecting hulls

hull appendage(s)

ballast

rig

sail(s)

~~associated~~ fittings

boat **corrector weights**

all other items of sports equipment excluding consumables and **personal equipment**

C.6.2 Boat Types

(a) MONOHULL

A **boat** with one **hull**.

(b) MULTIHULL

A **boat** with more than one **hull**.

(c) ~~SAILBOARD~~ WINDSURFER

C.6.3 Boat Control Definitions

(a) 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.

(b) MEASUREMENT TRIM

Measurement trim is achieved when either, as specified in **class rules**,

(i) two points on the **hull** are at set distances perpendicular to a plane, both the points and distances to be specified in **class rules**.

or

(ii) as determined by flotation with the **boat** in the condition as specified in **class rules**.

(c) WATERLINE

The line formed by the intersection of the water and the outside of the **hull(s)** when the **boat** is floating in **measurement trim**.

(d) WATERPLANE

A plane passing through the **waterline**.

(e) 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**.~~

Ballast types:

(i) INTERNAL BALLAST

Ballast positioned inside the **hull**.

(ii) EXTERNAL BALLAST

Ballast positioned outside the **hull**.

(ii) KEEL BALLAST

Ballast fixed to a **keel**.

(iv) MOVEABLE BALLAST

Ballast that may be moved.

(v) VARIABLE BALLAST

Water **ballast** the amount of which may be varied.

(vi) CORRECTOR WEIGHT

Weight installed in

C.6.4 Boat Dimensions

(a) BOAT LENGTH

The greatest longitudinal distance between the aftermost point and the foremost point ~~on~~ of the **boat** with **sails** and **spars** set as appropriate.

See H.3.4 and H.3.6.

(b) BEAM

The greatest transverse distance between the outermost points of the **boat**.

See H.3.4.

(c) WATERLINE LENGTH

The greatest longitudinal dimension of the **waterline**.

(d) WATERLINE BEAM

The greatest transverse dimension of the **waterline**.

(e) DRAFT

The greatest vertical distance between the **waterplane** and the lowest point of the **boat**.

(f) MINIMUM DRAFT

The **draft** with all **hull appendages** in their highest position.

(g) MAXIMUM DRAFT

The **draft** with all **hull appendages** in their lowest position.

(h) BOAT WEIGHT

The weight of the **boat**.

Section D – Hull Definitions

D.1 HULL TERMS

D.2 HULL MEASUREMENT POINTS

D.2.1 Hull Datum Point

A point on the **hull** centreplane specified in the **class rules** from which **hull** measurements ~~are~~ can be taken.

D.3 HULL DIMENSIONS

D.3.1 Hull Length

The greatest longitudinal distance between the aftermost point and the foremost point of the **hull(s)** excluding fittings.

See H.3.4.

D.3.2 Hull Beam

The maximum transverse dimension of the **hull** excluding fittings.

Section E – Hull Appendage Definitions

E.1 HULL APPENDAGE TERMS

E.1.2 Hull Appendage Types

- (a) KEEL
- (b) BILGE KEEL
- (c) FIN
- (d) BULB
- (e) SKEG
- (f) CENTREBOARD
- (g) DAGGERBOARD
- (h) BILGEBOARD
- (i) RUDDER
- (j) TRIM TAB

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 RIG TERMS

F.1.2 Rig Types

(a) UNA RIG

A single-masted **rig** with a **mainsail** only.

(c) SLOOP RIG

A single-masted **rig** with a **mainsail** and one **staysail headsail**.

(d) CUTTER RIG

A single-masted **rig** with more than one **staysail headsail**.

(e) KETCH RIG

A two-masted **rig** with the fore mast – the **mainmast** – taller than the aft mast – the **mizzenmast** – set forward of the rudder stock.

(f) YAWL RIG

A two-masted **rig** with the fore mast – the **mainmast** – taller than the aft mast – the **mizzenmast** – set aft of the rudder stock.

(g) SCHOONER RIG

A two-masted **rig** with the fore mast – the **foremast** – shorter than, or the same height as, the aft mast – the **mainmast**.

F.1.3 Spars

F.1.4 Spar Types

(a) MAST

The A **spar** on which the **head** or **throat** of a **sail** or a **yard** is set. Includes its **rigging**, **spreaders**, fittings and any **corrector weights**, ~~excluding any but not~~ fittings that are not essential to the function of the mast as part of the **rig**.

(b) MAST TYPES

(i) MAINMAST

(a) The only **mast** in a **una** or **sloop**.

(b) The fore **mast** in a **ketch** or **yawl**.

(c) The aft **mast** in a **schooner**.

(ii) FOREMAST

The fore **mast** in a **schooner**.

(iii) MIZZENMAST

The aft **mast** in a **ketch** or **yawl**.

(c) BOOM

A **spar** attached at one end to a mast **spar** or a **hull** on which the **clew** of a **sail** is set and on which the **tack** and/or **foot** of the **sail** may be set. Includes its **rigging**, fittings and any **corrector weights**, but not **running rigging**, **running rigging** blocks and any kicking strap/strut arrangement.

(d) BOOM TYPES

(i) FOREMAST BOOM

A **boom** attached to a **foremast spar** to set a **foresail**.

(ii) HEADSAIL BOOM

A **boom** attached to a **hull** to set a **headsail**.

(iii) MAIN BOOM

A **boom** attached to a **mainmast spar** to set a **mainsail**.

(iv) MIZZEN BOOM

A **boom** attached to a **mizzenmast spar** to set a **mizzen**.

(vi) STAYSAIL BOOM

A **boom** attached to a mast **spar** or a **hull** to set a **staysail**.

(vii) WISHBONE BOOM

A double **boom** attached to a mast **spar** to set a **sail** and which has one **spar** on each side of the **sail**.

(e) OTHER SPAR TYPES(i) SPINNAKER POLE

A **spar** attached to the mast **spar** to set a **spinnaker**.

(ii) WHISKER POLE

A **spar** attached to a mast **spar** and a **headsail clew**.

(iii) BOWSPRIT

A **spar** extending forward from a **hull** to attach **rigging** and/or the **tack** of a **headsail**, or **headsails**. Includes fittings and any **corrector weights**.

(iv) BUMPKIN

A **spar** extending aft from a **hull** to attach **rigging**. Includes fittings and any **corrector weights**.

(v) GAFF

A **spar** attached at one end to a mast **spar** to set the **peak**, **throat** and/or **head** of a quadrilateral **sail**. Includes fittings and any **corrector weights**.

(vi) SPRIT

A **spar** attached at one end to a mast **spar** or a **hull** to set only the **peak** of a quadrilateral **sail**.

(vii) YARD

A **spar** hoisted on a mast **spar** at a point between its ends to set the **head** of a quadrilateral **sail** or the **luff** of a **lateen sail**.

F.1.5 Rigging

Any equipment attached at one or both ends to **spars**, **sails** or other **rigging** and capable of working in tension only. Includes associated fittings which are not permanently fixed to a **hull**, **spar** or **spreader**.

F.1.6 Rigging Types(a) STANDING RIGGING

Rigging used to support and/or trim a mast **spar**. It may be adjustable.

Types of **standing rigging**:

(i) SHROUD

Standing rigging providing transverse support for a mast **spar** and which may also provide longitudinal support.

(ii) STAY

Standing rigging mainly providing longitudinal support for a mast **spar** and/or supporting a **staysail**.

(iii) CHECKSTAY

Standing rigging providing aft support for a mast **spar** at a point, or points, between the gooseneck and the **forestay rigging point**.

(iv) BACKSTAY

Standing rigging providing aft support for a mast **spar** at a point, or points, above the **forestay rigging point**.

(iii) FORESTAY

Standing rigging providing forward support for a mast **spar**.

(b) RUNNING RIGGING

Rigging primarily used to trim a **spar** or a **sail**.

Types of running rigging:

(i) HALYARD

Running rigging to hoist a **sail**, **spar**, flag, or a combination thereof.

(ii) OUTHHAUL

Running rigging to trim the **clew** of a **sail** along a **boom**.

(iii) SHEET

Running rigging to trim the **clew** of a **sail**.

(iv) SPINNAKER GUY

Running rigging to trim the **tack** of a **spinnaker**.

F.1.7 Foretriangle

The area formed by the fore side of the foremost mast **spar**, the foremost **forestay** and the deck including any superstructure.

F.1.8 Limit Marks

(a) Limit Mark Dimensions

(i) LIMIT MARK WIDTH

~~**F.2 LIMIT MARK DIMENSIONS**~~

~~**F.3 FORETRIANGLE DIMENSIONS**~~

~~**F.4 MAST TERMS**~~

F.2 MAST MEASUREMENT DEFINITIONS

F.2.1 Mast Measurement Points

(a) MAST DATUM POINT

(b) HEEL POINT

(c) TOP POINT

(d) LOWER POINT

(e) UPPER POINT

F.2.2 Mast Limit Marks

(a) LOWER LIMIT MARK

(b) UPPER LIMIT MARK

F.2.3 Mast Dimensions

- (a) MAST LENGTH
- (b) LOWER POINT HEIGHT
- (c) UPPER POINT HEIGHT
- (d) RIGGING POINT

When **rigging** is attached:

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

BY TANG WITH BOLT OR OTHER THROUGH FIXING: The lowest point of the **spar** bolt or through fixing where it intersects the **spar**.

BY EYE WITH BOLT OR OTHER THROUGH FIXING: The lowest point of the **spar** bolt or through fixing where it intersects the **spar**.

IN OTHER WAYS: The intersection of the outside of the **spar**, ~~extend if necessary,~~ and the centreline of the **rigging** when at 90° to the **spar** surface, each extended as necessary.

- (e) FORESTAY HEIGHT
- (f) SHROUD HEIGHT
- (g) BACKSTAY HEIGHT
- (h) CHECKSTAY HEIGHT
- (i) TRAPEZE HEIGHT
- (j) 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~~ each extended as necessary.

- (k) MAST SPAR CURVATURE
- (l) MAST SPAR DEFLECTION
- (m) MAST SPAR CROSS SECTION
- (n) MAST SPAR WEIGHT
- (o) MAST WEIGHT
- (p) MAST TIP WEIGHT

F.2.5 Mast Fittings

- (a) SPREADER
 - (i) LENGTH
 - (ii) HEIGHT
- (b) SPINNAKER POLE FITTING
 - (i) HEIGHT
 - (ii) PROJECTION

~~F.9 BOOM TERMS~~**F.3 BOOM MEASUREMENT DEFINITIONS****F.3.1 Boom Measurement Points**

- (a) OUTER POINT

F.3.2 Boom Limit Marks

- (a) OUTER LIMIT MARK

F.3.3 Boom Dimensions

See H.3

- (a) OUTER POINT DISTANCE
- (b) BOOM SPAR CURVATURE

The greatest distance between
the **spar**

and a straight line from the ~~outer point to the top of the~~ uppermost fore end of the **spar** to the outer point or, where there is no **outer point**, to the uppermost aft end of the **spar** taken at 90° to the straight line when the **spar** is resting on one side.

- (c) BOOM SPAR DEFLECTION
 - (i) VERTICAL
 - (ii) TRANSVERSE
- (d) BOOM SPAR CROSS SECTION
 - (i) VERTICAL
 - (ii) TRANSVERSE
- (e) BOOM WEIGHT

~~**F.13 SPINNAKER/WHISKER POLE TERMS**~~

~~**F.13.1 Spinnaker/Whisker Pole**~~

F.4 SPINNAKER POLE / WHISKER POLE MEASUREMENT DEFINITIONS

F.4.1 Spinnaker Pole / Whisker Pole Dimensions

See H.3.

- (a) SPINNAKER POLE / WHISKER POLE LENGTH
- (b) SPINNAKER POLE / WHISKER POLE SPAR CROSS SECTION
- (c) SPINNAKER POLE / WHISKER POLE WEIGHT

~~**F.13 BOWSPRIT TERMS**~~

~~**F.15.1 Bowsprit**~~

F.5 BOWSPRIT MEASUREMENT DEFINITIONS

F.5.1 Bowsprit Measurement Points

- (a) BOWSPRIT INNER POINT
- (b) BOWSPRIT OUTER POINT

F.5.2 BOWSPRIT LIMIT MARKS

- (a) BOWSPRIT INNER LIMIT MARK
- (b) BOWSPRIT OUTER LIMIT MARK

The **limit mark** for the setting of ~~the~~ a **headsail**.

F.5.3 BOWSPRIT DIMENSIONS

See H.3.

- (a) BOWSPRIT POINT DISTANCE
- (b) BOWSPRIT SPAR CROSS SECTION
- (c) BOWSPRIT WEIGHT

F.6 FORETRIANGLE DIMENSIONS MEASUREMENT DEFINITIONS**F.6.1 Foretriangle Dimensions**

- (a) FORETRIANGLE BASE
- (b) FORETRIANGLE HEIGHT
- (c) FORETRIANGLE AREA

Half the product of the foretriangle base and the foretriangle height.

F.11 BOOM LIMIT MARKS**F.11.1 Outer Limit Mark**

The limit mark for the setting of the mainsail, foresail or mizzen.

Section G – Sail Definitions**Subsection A – Trilateral Sails**

Definitions relating to sails with only three sail edges.

Mainsail also applies to foresail and mizzen.

Headsail also applies to jib, flying jib and genoa and also spinnaker and gennaker and staysail unless when these are mentioned separately.

G.1 GENERAL SAIL TERMS**G.1.2 Set Flying**

A sail set with no sail edge attached to the rig.

G.1.3 Sail Types

- (a) MAINSAIL

A sail with the luff attached to the mast spar, or to the mainmast spar if more than one mast. The lower of the sails if there is more than one sail with the luff set to that spar.

- (b) STAYSAIL

A sail with the luff attached to a stay.

- (c) HEADSAIL

A sail set forward of the mast spar, or of the foremost mast spar if more than one mast.

- (i) JIB

A headsail staysail with a clew that cannot extend aft of the supporting mast spar.

(ii) FLYING JIB

A **headsail set flying** with a **clew** that cannot extend aft of the supporting mast **spar**.

(iii) GENOA

A **headsail staysail** with a **clew** that can extend aft of the supporting mast **spar**.

(iv) GENNAKER

A **headsail set flying** with a **clew** that can extend aft of the supporting mast **spar**.

(v) SPINNAKER

A **headsail set flying** with a **sheet** and a **spinnaker guy**.

(d) FORESAIL

A **sail** with the **luff** attached to a **foremast spar**. The lower of the **sails** if there is more than one **sail** with the **luff** set to that **spar**.

(e) MIZZEN

A **sail** with the **luff** attached to a **mizzenmast spar**. The lower of the **sails** if there is more than one **sail** with the **luff** set to that mast **spar**.

(f) LATEEN SAIL

A **sail** with the **luff** attached to a **yard**.

(g) TOPSAIL

A **sail** set above another **sail**, or **sails**, set to the same **spar** or **stay**.

G.1.4 Sail Construction

(a) BODY OF THE SAIL

(b) PLY

(c) SOFT SAIL

(d) WOVEN PLY

(e) LAMINATED PLY

(f) SINGLE PLY SAIL

(g) DOUBLE LUFF SAIL

A **sail** with more than one **luff**, or a **sail** passing around a **stay** or **spar** and attached back on itself.

(h) SEAM

(i) DART

Overlap where an area cut out of one **ply** is joined.

(j) TUCK

Overlap where a **ply** is folded and joined.

(k) BATTEN POCKET

(l) SAIL OPENING

(m) WINDOW

(n) STIFFENING

(o) ATTACHMENTS

(p) SAIL EDGE HOLLOW

Concavity in the shape of the **sail edge** between

adjacent **batten pockets**, or
a **batten pocket** and the adjacent **corner point**, or
in the case of a **mainsail**, or **headsail** other than **spinnaker** or a
gennaker, a **batten pocket** and the adjacent **aft head point**

See H.5.2

(q) SAIL EDGE SHAPE

The shape of a **sail edge** as a comparison with a straight line between
corner points or,

in the case of a **mainsail**, or **headsail leech** other than a **gennaker** or
spinnaker, the **clew point** and the **aft head point**

G.2 SAIL EDGES

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.4.2 Head Point

~~(b) HEADSAIL JIB, FLYING JIB and GENOA: The intersection ...~~

(c) SPINNAKER and GENNAKER: The intersection of the **luff** and the **leeches**,
each extended as necessary.

G.5 OTHER SAIL MEASUREMENT POINTS

G.5.5 Aft Head Point

MAINSAIL, JIB, FLYING JIB and GENOA: The intersection of ...

G.5.6 Quarter Luff Point

The point on the **luff** equidistant from the **half luff point** and the **tack point**.

G.5.7 Half Luff Point

The point on the **luff** equidistant from the **head point** and the **tack point**.

G.5.8 Three Quarter Luff Point

The point on the **luff** equidistant from the **head point** and the **half luff point**.

G.5.9 Mid Foot Point

~~(a) MAINSAIL and HEADSAIL: The point on ...~~

~~(b) SPINNAKER: The point on the **foot** equidistant from the **clew points**.~~

G.6 SAIL REINFORCEMENTS

G.6.6 Tabling

G.7 PRIMARY SAIL DIMENSIONS

G.7.1 Foot Length

~~(a) MAINSAIL and HEADSAIL: The distance between ...~~

~~(b) SPINNAKER: The distance between the **clew points**.~~

G.7.4 Quarter Width

- (a) ~~MAINSAIL and HEADSAIL~~, JIB, FLYING JIB and GENOA: The distance between the **clew point** and the **tack point**.
- (b) SPINNAKER and GENNAKER: The distance between the **quarter luff point** and the **quarter leech points**.

G.7.5 Half Width

- (a) ~~MAINSAIL and HEADSAIL~~, JIB, FLYING JIB and GENOA: The shortest distance
- (b) SPINNAKER and GENNAKER: The distance between the **half luff point** and the **half leech points**.

G.7.6 Three-Quarter Width

- (a) ~~MAINSAIL and HEADSAIL~~, JIB, FLYING JIB and GENOA: The shortest distance
- (b) SPINNAKER and GENNAKER: The distance between the **three-quarter luff point** and the **three-quarter leech points**.

G.7.7 Upper Width

- (a) ~~MAINSAIL and HEADSAIL~~, JIB, FLYING JIB and GENOA: The shortest distance

G.7.8 Top Width

MAINSAIL, JIB, FLYING JIB and GENOA: The distance

G.7.9 Diagonals

- (a) CLEW DIAGONAL
~~SPINNAKER:~~ The distance between a **clew point** and the ~~opposite half leech~~ **half luff point**.
- (b) TACK DIAGONAL
 The distance between a **tack point** and the **half leech point**.

G.7.11 Luff Perpendicular

- ~~(a) MAINSAIL and HEADSAIL:~~ The shortest distance

G.8 OTHER SAIL DIMENSIONS

G.8.1 Batten Pocket Length

- (a) INSIDE: The greatest 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 and any local widening for batten insertion shall be ignored.
- (b) OUTSIDE: The greatest distance between the **sail edge** and the external extreme end of the **batten pocket**, measured parallel to the pocket centreline. The effect of any local widening for batten insertion shall be ignored.

G.8.6 Dart Width

The width of a **dart** measured at 90° to the **dart** centreline.

G.8.7 Tuck Width

The width of a **tuck** measured at 90° to the **tuck** centreline.

G.8.8 Attachment Size**Subsection B – Additions for Other Sails**

The following definitions for ~~other non trilateral sails, e.g. gaff sails, lugsail and spritsails,~~ are additional to or vary those given in Subsection A of this Section.

G.1.4 Sail Types**(l) LUG SAIL**

A quadrilateral **sail** with the **head** attached to a **yard** asymmetrically attached to a mast **spar**.

(m) SPRIT SAIL

A quadrilateral **sail** with the **peak** attached with a **sprit**.

(n) GAFF SAIL

A quadrilateral **sail** with **head** attached with a **gaff**.

(o) GUNTER SAIL

A **gaff sail**.

(p) SQUARE SAIL

A **sail** attached to a **yard** symmetrically attached to a mast **spar**.

Section H – Equipment Certification Control and Equipment Inspection**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~~ AXES

H.3.2 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.3.3 For a component,

H.3.4 Unless otherwise

H.3.5 Unless otherwise

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 sectional planes through the measurement points at 90° to the **spar** at each point.

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.5.2 Hollows in Sail Edges

Where ~~the~~ there is a sail edge hollow ~~is hollow~~ and a measurement point falls in the hollow, ~~between adjacent battens pockets; between the aft head point and adjacent battens pocket; between the clew point and adjacent battens pocket; between the tack point and adjacent battens pocket; at an attachment.~~ the sail edge hollow shall be flattened out in the area of the sail edge, the sail edge 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.