



Changes ERS 2017 – 2020

Measurement Protests under RRS 2017 – 2020

ERS:

- 2017-2020 version is black
- *2013-2016 version is blue italic*
- When both versions coincide in part

Introduction

Applicability

The ERS are *rules* only if they are invoked by:

- a) **Class Rules.**
- b) Adoption in the notice of race and sailing instructions.
- c) Prescriptions of an MNA for races under its jurisdiction.
- d) World Sailing Regulations, or
- e) Other documents that govern an event.

The Equipment Rules of Sailing includes and references:

- a) *Rules for use of equipment.*
- b) *Definitions of equipment, measurement points and measurements for use in **class rules** and other rules and regulations.*
- c) *Rules governing **certification control** and **equipment inspection***

Part 1: Section A

A.1 CLASS RULES

Class rules may change rules B.1, B.2 and B.3.

Part 1: Section B

2017:

B.1.1 Mast Upper Limit Mark

(a) TRILATERAL MAINSAIL

The **sail** shall be below the **mast upper limit mark**.

(b) QUADRILATERAL MAINSAIL

The **throat point** shall be below the **mast upper limit mark**.

(no reference for QUADRILATERAL MAINSAILS)

Part 2: Section C

C.3.1 Certification Authority

World Sailing, the MNA in the country where the **certification** shall take place, or their delegates.

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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.*

Part 2: Section C (cont.)

C.3.3 Certificate

Documentary proof of successful **certification control** as required by the **class rules** or a **certification authority**.

For the **hull**: issued by World Sailing, the MNA of the owner, or their delegates.

For other items: issued by the **certification authority**.

C.3.3 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**.*

Part 2: Section C (cont.)

C.4.2 Certification Control

C.4.2 Certification Measurement

Part 2: Section C (cont.)

C.6.3 Boat Control Definitions

(b) MEASUREMENT TRIM

Trim achieved when two points on the **hull(s)** are at set distances perpendicular to a plane. The plane, the points and distances to be specified in **class rules**.

(c) FLOTATION TRIM

Trim achieved with the **boat** floating in accordance with H.7.1 – Conditions for Weight and Flotation Measurement.

(d) WATERLINE

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

Part 2: Section C (cont.)

C.6.3 Boat Control Definitions

(b) MEASUREMENT TRIM

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

*(i) two points on the **hull(s)** are at set distances perpendicular to a plane – the plane, 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(s) formed by the intersection of the outside of the **hull(s)** and*

*(i) a plane specified in the **class rules**, or*

*(ii) the water surface when the **boat** is floating in **measurement trim**.*

Part 2: Section C (cont.)

iv) VARIABLE BALLAST

Water **ballast** the amount of which may be varied and which may also be moved.

C.6.4 Boat Dimensions

(a) BOAT LENGTH

The longitudinal distance between the aftermost point and the foremost point of the **boat**, excluding sails, with **spars** set as appropriate.

Part 2: Section C (cont.)

h.) BOAT WEIGHT

The weight of the boat excluding sail(s) and variable ballast.

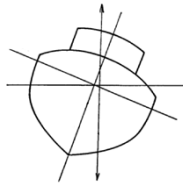
i.) WINGSPAN (new)

The maximum transverse distance between the outermost points of any **wings**.

Part 2: Section C (cont.)

j.) LIST ANGLE (new)

The maximum angle of heel of the **boat**, measured relative to the **boat** floating upright, in the **condition for weight and flotation measurement** with **moveable ballast** moved fully to port or starboard.



Part 2: Section C (cont.)

C.6.5 Boat Age (new)

(a) SERIES DATE

The date on which the first **boat** of the design or the production series was first launched, whichever is earlier. Series Date does not change if the **boat** is modified.

(b) AGE DATE

The date on which the **boat** was first launched, or the date on which the **boat** was re-launched following any hull shell modification, excluding the transom, whichever is the later.

Part 2: Section D

D.1.1 Hull

The **hull** 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.3.3 Hull Depth (new)

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

Part 2: Section E

WING (new)

A **hull appendage** attached to a **keel, bilge keel, canting keel, fin** or **bulb**, primarily used to affect leeway and/or lift.

FOIL (new)

A **hull appendage** attached to a **centreboard, daggerboard, bilgeboard** or **rudder**, primarily used to affect leeway and/or produce vertical lift.

Part 2: Section F

F.1.3 Spar

The main structural part(s) of the **rig**, to, or from which **sails** are attached and/or supported. It includes its fittings and any corrector weights.

Part 2: Section F (cont)

F.1.4 Spar Types

(a) MAST

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

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Part 2: Section F (cont)

BOOM

A **spar** attached at one end to a mast **spar** or a **hull** and 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**, but not **running rigging**, **running rigging** blocks and/or any kicking strap/strut arrangement.

BOOM

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Part 2: Section F (cont)

OTHER SPARS

Other **spar** types include their **rigging**, but not **running rigging**.

OTHER SPARS

*Other **spar** types include their **rigging**, fittings and any **corrector weights**, but not **running rigging**.*

Part 2: Section F (cont)

BAR (new)

A **spar** to set and control a **kite**.

FLYING LINES (new)

Rigging used to trim a **kite**.

FRONT LINES (new)

Flying lines used to transfer the power from a **kite** to the **crew**.

BACK LINES (new)

Flying lines used for steering a **kite**.

Part 2: Section F (cont)

Rigging Types

(a) STANDING RIGGING

Rigging used to support a mast **spar** or **hull spar**. It may be adjustable but is not detached when racing except as below:

Standing Rigging types:

(i) SHROUD

Rigging used to provide transverse support for a mast **spar** or **hull spar** and which may also provide longitudinal support.

(ii) STAY

Rigging mainly used to provide longitudinal support for a mast **spar** or **hull spar** or a **sail** which may be detached while *racing*.

(iii) FORESTAY

Rigging used to provide forward support for a mast **spar**.

Part 2: Section F (cont)

MAINSAIL LUFF MAST DISTANCE (new)

The distance between the **lower point** and the **upper point**.

FORESTAY HEIGHT

The distance between the **mast datum point** and the **rigging point** or the **top point** whichever is the lowest.

HEADSAIL HOIST HEIGHT (new)

The distance between the **mast datum point** and the intersection of the **spar** and the lower edge of the **headsail halyard**, when at 90° to the **spar**, each extended as necessary.

Part 2: Section F (cont)

FORETRIANGLE HEIGHT

The distance between the intersection of the **sheer** and the fore side of the mast **spar**, extended as necessary, and the **forestay rigging point**.

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**.*

Part 2: Section F (cont)

F.7 SAIL SETTING MEASUREMENT DEFINITIONS

F.7.1 Spinnaker Tack Distance

The maximum longitudinal distance from the fore side of the mast **spar** to the end of the longest **spinnaker pole** or the **bowsprit outer point** measured on or near the **boat centreplane**; or the longitudinal distance from the fore side of the mast spar, extended as necessary, and the deck including any superstructure, forward to the spinnaker tack point on deck; whichever is the greatest.

Part 2: Section G

G.1.1 Sail

batten pockets and associated fittings

KITE (new)

A **sail** attached to the **bar**.

PLY

A sheet of sail material. *(no more mention of layers)*

BATTEN POCKET

Ply to form a pocket for a batten. *(no more use of "additional")*

Part 2: Section G (cont)

G.4.2 Head Point

HEADSAIL: The intersection of the **luff**, extended as necessary, and the line at 90° to the **luff** passing through the highest point of the **sail** excluding **attachments** and any luff tape.

Seven-Eighths Leech Point (new)

The point on the **leech** equidistant from the **head point** and the **three-quarter leech point**.

Seven-Eighths Luff Point (new)

The point on the **luff** equidistant from the **head point** and the **three-quarter luff point**.

Part 2: Section G (cont)

G.6.2 Secondary Reinforcement

at a reefing point *(no more adjacent to luff or leech)*

G.7.7 Seven-Eighths Width (New definition)

(a) MAINSAIL and HEADSAIL: The shortest distance between the **seven-eighths leech point** and the **luff**.

(b) SPINNAKER: The distance between the **seven-eighths leech point** and the **seven-eighths luff point**.

Part 2: Section G (cont)

Subsection B – Additions for Other Sails

G.5.4 Seven-Eighths Leech Point (New definition)

The point on the **leech** equidistant from the **peak point** and the **three-quarter leech point**.

G.5.8 Half Luff Point (New definition)

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

G.5.9 Three-Quarter Luff Point (New definition)

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

G.5.10 Seven-Eighths Luff Point (New definition)

The point on the **luff** equidistant from the **peak point** and the **three-quarter luff point**.

G.7.10 Diagonals

(b) TACK DIAGONAL (new)

The distance between the **tack point** and the **peak point**.

Part 3: Section H

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 **class rules authority**.

Part 3: Section H (cont)

H.5.4 Extended as necessary (New definition)

If there is local curvature and/or irregularity in the **sail edge** leading into a corner point, the extension of the **sail edge** shall be found as follows using a batten as specified in H.5.4(e) :

(a) Hold the batten at its very ends with one end approximately where the **corner point** will be and the other end touching the **sail edge** being extended.

(b) Apply compression only to the batten to produce a uniform curve when required.

(c) If the batten does not replicate the sail edge shape exactly, move the end of the batten at the **corner** away from **sail** until the longest possible length of the batten touches the **sail edge**.

(d) Where this technique does not provide a repeatable **corner point**, ERS H.1.2 shall apply.

(e) Battens shall be of a specification approved by World Sailing unless otherwise specified in class rules.

(f) Class Rules may vary ERS H.5.4

Part 3: Section H (cont)

H.7.1 Conditions for Weight and Flotation Measurement

- The **boat** shall:
 - be dry.
 - be in compliance with the **class rules**.
 - Unless otherwise specified in the *rules*, any of the following shall be included:
 - **rig** including **spinnaker pole(s)**, **whisker poles** and/or jockey pole
 - **main sheet** and **mizzen sheet**,
 - **vang**,
 - Inboard engine or outboard engine in stowed position,
 - fitted berth cushions on board in their normal positions,
 - all permanent fixtures and fittings and items of accommodation.
 - Unless otherwise specified in the *rules*, any of the following shall be excluded:
 - **sails**
 - fuel, water, **variable ballast** or the content of any other tanks,
 - gas bottles
 - portable safety equipment
 - and all other unfitted or loose equipment.

APPENDIX 2 (New appendix)

Abbreviations for primary sail dimensions:

	ERS Rule Reference	Dimension	Abbreviation
Mainsail	G.7.4 (a)	Mainsail Quarter Width	MQW
	G.7.5 (a)	Mainsail Half Width	MHW
	G.7.6 (a)	Mainsail Three Quarter Width	MTW
	G.7.8 (a)	Mainsail Upper Width	MUW
	G.7.9 (a)	Mainsail Top Width	MHB
Headsail	G.7.3	Headsail Luff Length	HLU
	G.7.4 (a)	Headsail Quarter Width	HQW
	G.7.5 (a)	Headsail Half Width	HHW
	G.7.6 (a)	Headsail Three Quarter Width	HTW
	G.7.8 (a)	Headsail Upper Width	HUW
	G.7.9 (a)	Headsail Top Width	HHB
Spinnaker	G.7.11	Headsail Luff Perpendicular	HLP
	G.7.3	Spinnaker Luff Length	SLU
	G.7.2	Spinnaker Leech Length	SLE
	G.7.1	Spinnaker Foot Length	SFL
	G.7.5 (b)	Spinnaker Half Width	SHW



Measurement Protests

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Who can protest ?

- Boat vs. boat (rule 60.1)
- Race committee vs. boat (rule 60.2)
- Protest committee vs. boat (rule 60.3)
- Technical Committee vs. boat (rule 60.4)
- 60.5 However, neither a boat nor a committee may protest for an alleged breach of rule 5, 6, 7 or 69.

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92 TECHNICAL COMMITTEE

92.1 A technical committee shall be a committee of at least one member and be appointed by the organizing authority or the race committee or as prescribed in the World Sailing Regulations.

92.2 The technical committee shall conduct equipment inspection and event measurement as directed by the organizing authority and as required by the rules.

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- Measurer can protest if he is part of the Technical Committee
- **60.4** A technical committee may
 - (a) protest a boat, but not as a result of information arising from a request for redress or an invalid *protest*, or from a report from a person with a *conflict of interest* other than the representative of the boat herself. However, it shall protest a boat if it decides that:
 - (1) a boat has broken a rule of Part 4, but not rules 41, 42, 44 and 46, or
 - (2) a boat or personal equipment does not comply with the class rules;
 - (b) request redress for a boat; or
 - (c) report to the protest committee requesting action under rule 69.2(b).

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