

Guide to ISAF Standard Class Rules

Closed Class Rules – One-Design version

The **Standard Class Rules (SCR)** is a template for International Classes and Recognised Classes on which to base their class rules. The SCR give a cohesive structure for use by any type of class but do not imply any standardisation of equipment design or its use.

In contrast to former ISAF / IYRU class rules templates, the SCR divide the manufacturer's and competitor's responsibilities. This facilitates in-house certification of equipment and highlights the responsibilities of the competitor.

The SCR may be used to draft the following rule types:

CLOSED CLASS RULES where anything not specifically permitted by the class rules is prohibited.

OPEN CLASS RULES where anything not specifically prohibited by the class rules is permitted.

Compliance with class rules may be demonstrated through the following methods:

MANUFACTURING CONTROL where equipment control is undertaken by a manufacturer.

FUNDAMENTAL MEASUREMENT where equipment control is undertaken by an official measurer.

Both rule types and control methods may be used within the same class rules.

When preparing class rules the Equipment Rules of Sailing (ERS) definition of class rules should be kept in mind:

C.3.1 CLASS RULES

The rules that specify the **boat** as it shall be used for racing.

Warning

The standard class rules is a collection of rules from which each class may choose to suit its individual needs.

Great care should be taken to use no more rules than necessary to specify the boat as used for racing.

If current class rules are being re-written using the SCR template, use the opportunity to consider whether or not each existing rule is required. For example, are sail reinforcement limits necessary?

Only use rules you really need! In this regard "Less is more" (Mies van der Rohe).

The **SCR** is under continual review and, unlike the **ERS**, is subject to update at any time. For the latest edition see the ISAF website.

GENERAL

The SCR is a model on which International Classes and Recognised Classes shall base their **class rules**.

This guide is provided to help compose a set of **class rules**.

Both the SCR and this Guide are available from ISAF in electronic form on disk.

THE EQUIPMENT RULES OF SAILING

As of November 1997 all classes applying for international or recognised status shall have **class rules** which accord with the ERS.

The ERS define most pieces of equipment and regulate their use. They are published every four years in parallel with the RRS.

Revised editions of the ERS will be published ... months in advance of their implementation. This should give classes sufficient time to decide if they should continue to use any definitions that may have been amended and whether or not to use any new definitions that have been added.

An ERS definition is only invoked by a class if it is used in its defined sense in the **class rules** (by using the word highlighted by **bold font**). This means that, when a new edition of the ERS is issued, any amended definition will be invoked.

A class shall not use measurement points and measurement methods other than those defined in the ERS unless it has justifiable reasons for doing so and then only when these are clearly described in the **class rules** themselves.

THE SECTIONS OF THE CLASS RULES

Section A shall state whether rules in Sections C to G are **open class rules** or **closed class rules**.

Section D to G shall contain all rules that are required to be measured/checked at **fundamental measurement**. If a class permits component parts of a **boat** to be **certified** independently, all rules relevant to the component measurement/checking need to be in the appropriate section, i.e. no checks required for **certification** shall be placed in Section C.

Section C shall contain rules that do not require **fundamental measurement**. If a component is **certified**, Section C shall contain measurements that involve more than one component, e.g. the position of a **boom limit mark** cannot normally be checked without setting the **spar** on the mast **spar**.

CERTIFICATION OF COMPONENTS

It is of great advantage for the competitor if components can be **certified** independently. A replacement centreboard may then be purchased **certified** and used immediately; or a **certified** centreboard may be borrowed at an event in the case of equipment failure.

Clearly the practise of permitting the use of **certified** components is only possible when the component is controlled by the **class rules** in such a way that components are interchangeable. The measurement system needs to be designed so that there is one point of control common between the **hull** and the component, or between two components. As an example the pivot point of a **centreboard** could be controlled in relation to the **hull datum point** and the shape of the **centreboard** controlled in relation to the **centreboard pivot point**.

As mentioned above under “The Sections of the Class Rules”, measurements that would require access to two components could be excluded from **fundamental measurement**. It is though wise to use this possibility sparingly and mostly for things like **limit marks** as it is a risk that such checks otherwise will not be carried out.

USE OF DIAGRAMS

Diagrams may be used in the **class rules** to illustrate a particular position, point, placing, measurement or method.

When used they should reduce the amount of descriptive text required and clarify or remove ambiguity.

Care should be taken to avoid introducing conflict with the text and ambiguity. An example of this may be taken from the racing rules where it is imperative to give a written order of the marks and the side on which each is to be left. Often it is better to omit a course diagram as there is then no scope for misinterpretation.

Be aware that the ERS contain diagrams of the common **hull**, **rig** and **sail** measurement points. Where it is necessary to use a diagram similar to one used in the ERS it is preferred practice to use the same source material. Source material is available from

PART I – ADMINISTRATION

Section A – GENERAL

Class Rules can be categorised (ERS C.3) as:

Closed Class Rules, where the default is that anything not specifically permitted is prohibited.

Open Class Rules, where the default is that anything not specifically prohibited is permitted.

Previously the terms were “One Design” where the **class rules** were intended to produce **boats** being as close as possible to identical within given tolerances and “Development” where the purpose of the **class rules** was to control the parameters defining a permitted **boat**.

*Important: In **closed class rules** nothing should be stated as prohibited unless the prohibition is an exception to something that is stated as permitted.*

The structure of the Standard Class Rules recognises that different sections of the **class rules** may be categorised independently in Section A.

A.1 LANGUAGE

For International Classes and Recognised Classes only English can be used. This “template” can however be used for any class, which so desires, and for national classes the relevant language can therefore be applied.

A.3 AUTHORITIES AND RESPONSIBILITIES

A.3.2 No legal responsibility with respect to these **class rules**, or accuracy of measurement, rests with:

- the ISAF,
- the MNA,
- the ICA,
- an NCA.
- the **certification authority**,
- an **official measurer**,

*No claim arising from these **class rules** can be entertained.*

A.5 ISAF RULES

The ERS provides a framework for defining a boat, but a class may deviate from its definitions and procedures. This is not recommended and should only be undertaken in special cases, for example where characteristic features of a boat can not be properly covered by the ERS.

A.6 SAILING INSTRUCTIONS

A.6.2 As amended by ISAF regulation 26.5(f) – Class events.

A.7 CLASS RULES AMENDMENTS

*When a class has been granted international status it is under the absolute control of ISAF, and **class rules** cannot be changed unless such changes have been approved by ISAF in accordance with Regulation 10.3.13*

A.8 CLASS RULES INTERPRETATIONS

*From time to time an interpretation of the **class rules** may be needed. Interpretations can only be made by a MNA, an ICA, Copyright Owners (i.e. the designer of the boat), a Manufacturer or an International Measurer and the ISAF Regulation 10.3.14 outlines the procedure.*

ISAF regulation 26.11.1 only apply to the ISAF Classes.

Previous editions gave different methods of obtaining interpretation generally and at an event. This edition has deleted the at an event interpretation because it is now believed international communications have sufficiently improved to enable the Regulation to be applied in all cases.

A.9 INTERNATIONAL CLASS FEE(S) AND ISAF PLAQUE

The procedure given in the Standard Class Rules is the “normal” and recommended procedure. Other arrangements could be possible.

This applies to ISAF International Classes only.

A.10 SAIL NUMBERS

Depending on which organisation is actually administering the class (see A.5.2 in the Standard Class Rules), sail numbers could also be issued by the ICA or a NCA.

A.11 HULL CERTIFICATE

To define the 3 different methods of controlling corrector weights.

A.12 INITIAL CERTIFICATION

On measurement forms.

Standardised format.

Who keeps?

Necessary for certain types of classes only.

Measurement forms for components.

A.13 VALIDITY OF CERTIFICATES

*The text in this rule of the Standard Class Rules is mandatory and cannot be changed in **class rules**.*

A.14 RE-CERTIFICATION

*The text in this rule of the Standard Class Rules is mandatory and cannot be changed in **class rules**.*

Section B – Boat Eligibility

For a **boat** to be eligible to *race*, the rules in this section shall be complied with.

B.1 CERTIFICATE

*The text in this rule of the Standard Class Rules is mandatory and cannot be changed in **class rules**.*

B.3 FLOTATION CHECK

This is normally only necessary for certain keelboats. Detail the size, type and placement of flotation marks.

B.4 CLASS ASSOCIATION STICKER

The use of Class Association Stickers may vary. If used detail their use, type and placement.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. Measurement to check conformity with rules of Section C is not part of **fundamental measurement**.

The rules in Part II are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

The text “The rules in Part II are closed class rules” to be used if all Sections in Part II are closed class rules. Otherwise it should be stated under “Rules” in each section whether the rules in that section are “closed class rules” or “open class rules”.

NEEDS TO BE A REFERENCE TO CLASS RULES COMPLIANCE

Section C – Conditions for Racing

Rules that are not part of fundamental measurement are placed in this section. The reason could be either that compliance with the rule could only be checked at an event or that checking requires access to one or more parts that are individually certified.

C.1 CREW

C.1.1 LIMITATIONS

Specify crew number limitations as in the standard class rules. Other subjects could be nationality and sex.

C.1.2 WEIGHTS

Specify crew weight limitations.

C.2 ADVERTISING

Mandatory. All classes shall have a stated policy on advertising.

Section D – Hull

D.1 COMPONENT PARTS

D.1.1 MANDATORY

Include any mandatory items which make up the total hull assembly. Do not include items specified in D.1.2.

D.1.2 OPTIONAL

Include any optional items which may be included as part of the hull assembly. Do not include items specified in D.1.1.

D.2 GENERAL

D.2.1 MEASUREMENT

Be consistent with other rules (e.g. E.2) and the class measurement philosophy.

D.4 IDENTIFICATION

On the inside or, in hulls with aft decks, the outside of the transom is preferable.

D.5 MANUFACTURERS

*If ISAF licensing is not the case then the rule shall say so even if the **class rules** are **closed**. E.g. The manufacturer of the hull is optional./The hull manufacturer is optional.*

It can be the case that even where no license is required by a manufacturer, moulds still need approval. E.g. Optimist.

D.6 HULL SHELL

D.6.1 MATERIALS

A list of materials shall only be included when the hull manufacturer is optional. In the case of licensed manufacturers the permitted materials will form part of the license and so should not be included here.

If different parts of a hull shell are required to be built from different materials then each part should have a separate rule. E.g.

- (a) The stem post shall be of oak
- (b) The transom shall be of GRP comprising E glass and polyester resin.

D.6.2 CONSTRUCTION

Specify the method of construction, e.g. moulding fabrication assembly etc. Again this should not be included when manufacture is only by license and again if different parts have different requirements then these should be in separate rules.

D.7 DECK

As D.6 except when non-licensed repairs are permitted in which case the details should be given in the non-licensed rule format.

D.8 BUOYANCY TANKS

As D.6 except when non-licensed repairs are permitted in which case the details should be given in the non-licensed rule format.

D.9 GUNWALE RUBBING STRAKES

As D.6 except when non-licensed repairs are permitted in which case the details should be given in the non-licensed rule format.

D.10 BULKHEADS

As D.6 except when non-licensed repairs are permitted in which case the details should be given in the non-licensed rule format.

D.11 THWARTS

As D.6 except when non-licensed repairs are permitted in which case the details should be given in the non-licensed rule format.

D.12 HULL

D.12.1 FITTINGS

The use of a measurement diagram is the preferred method of restricting the position of fittings. Consider how variations in the control dimensions will be allowed for and how precisely each position needs to be controlled, if at all. There are several possible formats:

- Global all dimensions are $\pm X$ mm
- Sliding scale dimensions $0 < 100$ are $\pm X$ mm, $100 < 1000$ are $\pm Y$ mm
etc
- Specific each dimension is minimum X and maximum Y

Where it is not practical to include a measurement diagram the position of the fittings should be included in D.12.2.

- (a) *Include all mandatory fittings. Omit all fittings specified in D.12.1 (b).*
- (b) *Include all optional fittings. Omit all fittings specified in D.12.1 (a).*

D.12.2 DIMENSIONS

*The limiting control dimensions of all mandatory items should be specified such that the item is correctly controlled. In formulating this consider how precisely the dimension needs to be controlled, if at all. For example, the width between mast partners will only be satisfactory if they fit the mast **spar**. Thus the mast **spar** width controls the partner width and there is no need for the rule.*

Use of the three major axes of measurement is preferred (ERS H.2) when specifying dimensions.

D.12.3 HULL WEIGHT

D.12.4 HULL CORRECTOR WEIGHTS

The material, number, position and any requirements concerning marking should be included, each in a separate rule.

Section E – Hull Appendages

E1 COMPONENT PARTS

Identify the mandatory and the optional appendages. Consider if it would be better if the optional items were mandatory or not permitted.

E2 GENERAL

State what other measurement procedures apply. Ensure they are consistent with others used elsewhere.

E3 KEEL/CENTREBOARD

*It is usual for a permanent part of the **boat** to comply always to the **class rules** in force at initial **fundamental measurement** but removable parts shall comply with the current **class rules**.*

It will be usual to show a diagram of the component and its dimensions. It may be preferred to keep all diagrams in Section H.

E4 RUDDER BLADE, RUDDER STOCK AND TILLER

Comments as for E3.

E5 OTHER MANDATORY ITEMS

Comments as for E3.

E6 OPTIONAL ITEMS

Any restrictions for optional items should be included.

SECTION F – RIG

F1 COMPONENT PARTS

Identify the mandatory and the optional parts. Consider if it would be better if the optional parts were mandatory or not permitted.

F3 MAST

*Ensure all other permitted finishing treatments for the **spar** are included e.g. waxing, painting, powder coating.*

Be aware that aluminium alloy need contain only 50%+ of aluminium. A more precise description may be required.

F4 BOOM

Comments as for F3

F5 SPINNAKER POLE

Comments as for F3

F6 STANDING RIGGING

Ensure the material is specified correctly. “Stainless steel” includes a multitude of different alloys. If the cross section shape of the rigging is to be controlled it will be necessary to say what it shall be limited to.

F7 RUNNING RIGGING

Identify the mandatory and optional parts.

SECTION G – SAILS

G1 COMPONENT PARTS

Identify the mandatory and optional sails.

G3 CERTIFICATION

Thickness of sailcloth may be used as the criterion rather than weight. It can be more readily checked by the sailmaker and measurer.

G5 MAINSAIL

The common restrictions on mainsails are given but your class may specify any preferred type of construction and material.

Ensure that any additional control measurements are defined properly.

G6 HEADSAIL

Comments as for G5.

G7 SPINNAKER

Comments as for G5.

PART III – APPENDICES

SECTION H – PLANS

PURPOSE

Plans are used to extend and support the **class rules** and contain material in diagrammatic form which, by virtue of its size, cannot be easily incorporated into the **class rules** document whether in physical or electronic form. They are nevertheless part of the **class rules**.

They are distinct from building specifications. See below.

Plans are used where a large number of dimensions need to be specified. They will be used at **certification** and **fundamental measurement**, but only very rarely at **event measurement**.

USE

Consideration should be given to the part plans have to play in the specification of the equipment. As with diagrams there is often considerable scope for ambiguity – and therefore conflict and interpretation.

For example, a set of vertical offsets from a datum line intended to specify the rocker line will actually be a set of points through which the true rocker line need pass (within the tolerances permitted for those points). What is to happen between those points?

It is probably safest to assume that, even in **closed class rules**, unless the **class rules** say what is to happen between specified points, then designers and builders will consider those areas open to development and treat them as such.

SCALE

If a plan is given a scale it may be inferred that all positions, dimensions and shapes are scaleable from that plan. Is this intended? It should be remembered that physical plans alter dimensionally (for this reason architects plans usually show that dimensions shall not be scaled from them).

MEDIA & FORMAT

The preferred medium is ... *(correct reference to a CAD file)* so that plans may be stored and transmitted electronically with minimal effort. The format should be any one of the ISO standards for ease of physical copying and storage.

IDENTIFICATION

Reference the plans by code in Section H and identify the plans accordingly and by date of issue.

AMENDMENTS

Be aware that amendments to plans are **class rule** changes.

BUILDING SPECIFICATIONS

DEFINITION

Information in tabular or text form which describes the materials, techniques and practices to be used and the relevant tolerances which, by virtue of its size, cannot be

easily incorporated into the **class rules** physical document. They are nevertheless part of the **class rules**.

They are distinct from plans. See above.

PURPOSE

Building specifications are used where a large amount of descriptive material needs to be made available to the builder. Except in special circumstances it is not intended that it should be used at **fundamental measurement** or **event measurement**.

ADVICE

Avoid repeating any material in the **class rules** document.

Reference the building specifications by code in the Section ? and identify the building specifications accordingly and by date of issue.

Be aware that amendments to building specifications are **class rules** changes.