



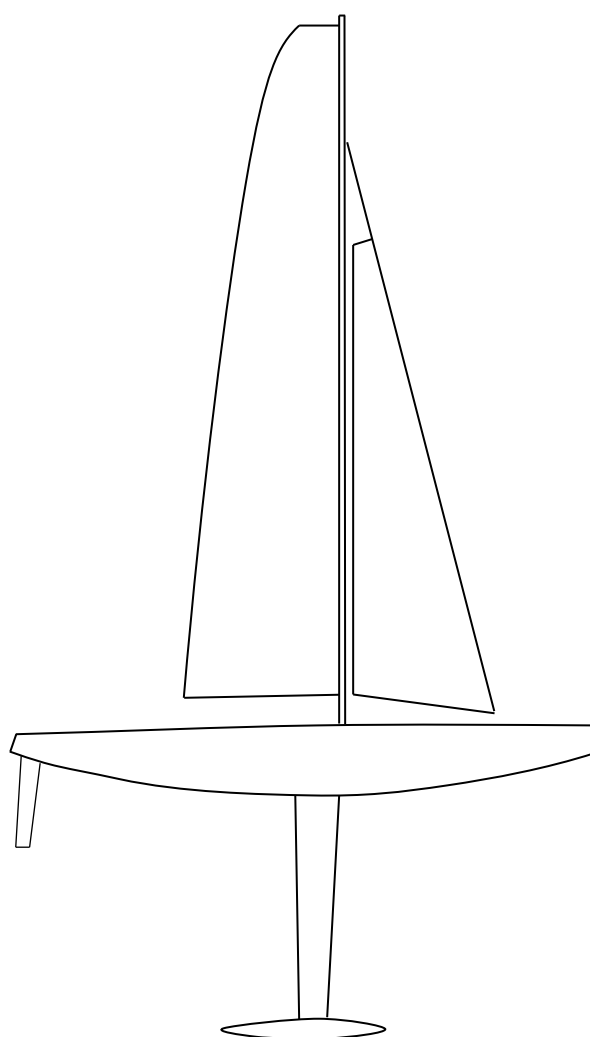
INTERNATIONAL RG 65 CLASS RULES



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Comments in Blue by Fredo Vollmer, March 2016



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Introduction

This introduction only provides an informal background and the International RG 65 Class Rules proper begin on the next page.

Certification and alterations

*RG 65 Class **hulls, hull appendages, rigs and sails** are **certified** by **certification control**.*

*RG Class **hulls, hull appendages, rigs and sails** may, after initial **certification control**, only be altered to the extent permitted in Section C of the class rules.*

Responsibility

Owners and competitors should be aware that compliance with rules in Section C is NOT checked as part of the initial certification control process.

*It is the responsibility of the owner and any other person in charge to ensure that a boat is maintained to comply with her class rules and that her **certificate** remains valid (RRS 78.1).*

Deviations outside of tolerances

*When an **equipment inspector** or **official measurer** for an event decides that a **boat** does not comply the class rules RRS 78.3 obliges him to make a report in writing to the Race Committee. When a Race Committee receives such a report they are obliged to protest the boat (RRS 60.2).*

When the protest committee finds that deviations in excess of tolerances specified in the class rules are not caused by normal wear and tear and/or do improve the performance of the boat, it shall penalise her.

If the protest committee decides that a class rule has deliberately or knowingly been breached by an owner, competitor, or crew they may call a hearing under rule 69.

Class rules

Rules regulating the use of equipment during a race are contained in Section C of these class rules, in ERS Part I and in the Racing Rules of Sailing.

*The **class rules** for the RG 65 Class are **open class rules** in which anything not specifically prohibited by the **class rules** is permitted, where individual rules require, limit, or prohibit as necessary.*

PART II – REQUIREMENTS AND LIMITATIONS

The competitor and the **boat** shall comply with the rules in Part II when *racing*.

Certification to check conformity with rules of Section C is not part of **certification control**.

The rules in Part II comprise **open class rules** where anything not specifically prohibited is permitted and **closed class rules** where anything not specifically permitted is prohibited.

Certification shall be carried out in accordance with the current ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

The rules of Section B of the ERS shall not apply.

C.2 COMPETITOR

C.2.1 LIMITATIONS

- (a) One competitor only shall control the **boat**.
- (b) The competitor shall not be substituted during an event.

C.3 ADVERTISING

C.3.1 LIMITATIONS

The **boat** may display only such advertising as permitted by the ISAF Advertising Code.

C.4 HULL

C.4.1 LIMITATIONS

The geometry of the **hull-shell** shall not be changed during an event.

According to ERS , I propose to use hull-shell as one part of the **hull**.

C.4.2 IDENTIFICATION

The **hull** registration number shall be displayed on the external surface of the **hull** clearly and legibly with a minimum height of 20 mm.

C.5 HULL APPENDAGES

C.5.1 LIMITATIONS

The same **hull appendages** shall be used during an **event** except when a **hull appendage** has been lost or damaged beyond repair. Such replacement may be made only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to the replaced **hull appendage**.

Perhaps we need to spell out that we are not trying to re-create the existing RG65 class that seems to permit some things that we think are not desirable for a well regulated international class. On the contrary we are removing those things we think are not desirable. Changing ballast is not permitted by the RRS and this rule is here to permit replacements where there is genuine loss only.

At registration to an event it is required to stamp hull, keel, rudder and up to 3 sail sets.
Thus a ballast should NOT be changed during the races of a full event.

Event or day ? This is a very dangerous point.

An "Event" is a full series of races (heats), and may endure more than one day.

If we choose "day", we create expensive requirements for all participants who do not want to have disadvantages from one to another day. And what would happen at a 6 days international championship ? Every morning we would have desperate skippers, who don't know which fin/bulb they shall use.

The current version of the RG65 (Fredo V. 2014) class rule speaks of "event" so this point is clear. However a lot of sailors have not recognized that.

C.5.2 USE

The **hull appendages**:

- (a) containing or forming **ballast** shall not be moved or rotated relative to the **hull**.
- (b) shall be attached to the **hull** at the centreplane.
- (c) shall not project fore or aft of the **hull** in relation to the datum waterplane described in Figure I.2.
- (d) shall not be moved, articulated, retracted or extended.

C.5.3 REMOTE CONTROL EQUIPMENT

- (a) The **rudder** control unit shall control the **rudder(s)** only.

The **sheet** control unit shall control ~~no more than a **mainsail sheet** and a **headsail sheet**.~~ **only the sheet system at only one single point.**

(b) C.6 RIG

C.6.1 LIMITATIONS

- (a) Not more than three **rigs** shall be used during an event.
- (b) **Spars** lost or damaged beyond repair may be replaced only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to the replaced item.

C.6.2 USE

The **rig** shall not project fore or aft of the **hull** in relation to the datum waterplane described in Figure I.2.

C.6.3 DIMENSIONS

Deck **limit mark** to the **top point** 1100 mm maximum.

C.7 SAILS

C.7.1 LIMITATIONS

- (a) Not more than three rigs, A, B, or C, each consisting of ~~no more than one **mainsail** and/or one **headsail**,~~ **one or more sails** shall be used. **The different rigs are NOT required to be of similar style.**
- (b) The race committee may attach **event limitation marks** to **sails** at an event.
- (c) When a **sail** has been lost or damaged beyond repair it may be replaced only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to a replaced **sail**.

C.7.2 IDENTIFICATION

- (a) Sail identification marks shall comply with the RRS.
- (b) The class insignia (App. X) shall be displayed on the mainsail above a straight line between the **three-quarter leech point** and the nearest point on the **luff**.

C.8 EQUIPMENT

C.8.1 PROHIBITED

- (a) Automated **electronic** control of **rig** and/or **sails**.
- (b) Automated **electronic** steering and/or navigation.
- (c) On board camera(s) .
- (d) The use of pictures from any source while *racing*.

The development of new electronic devices expected within the next years shall give opportunities to support sailors in a way we currently can not imagine.

Gentlemen, I would very much like to have a text for C.8.1. which expresses what we want in a general way. Otherwise we have to amend C.8.1. from year to year.

C.8.2 USE

- (a) Except for the establishment and maintenance of a radio control link, control unit positioning information, and signal strength and battery status information, no radio transmissions from the boat shall be used while racing. **In some sense this contradicts the previous Rule, as “control unit positioning” is now allowed! I would limit it to “Signal Strength” and “Battery Status”.**
- (b) Remote control and related equipment, if temporarily removed and/or replaced:
 - (1) shall be refitted in the same position.
 - (2) shall be replaced by equipment of similar weight.

Frederico, if we should agree on bulbs and fins not be changed during an event, then (2) should be necessary.

Section D – Hull

D.1 GENERAL

D.1.1 RULES

The **hull** shall either comply with the **class rules** in force at the time of its initial **certification measurement** or comply with the current **class rules**.

D.1.2 CERTIFICATION

See rule A.11.

D.1.3 IDENTIFICATION

The **hull** registration number shall be marked in an easily visible location on a non-removable part of the **hull** by any of the following means: painting on, engraving in, bonding in, moulding in.

D.2 HULL

D.2.1 DECK LIMIT MARKS

A deck **limit mark** for each rig A, B and C recorded on the **certificate**, shall be displayed on the **hull** centreline near to the relevant **mast** position. Each **limit mark** shall be a minimum of 5 mm in diameter.

D.2.2 MATERIALS

- (a) Except in remote control equipment, the density of material shall not exceed that of lead (11,340 kg/m³).

Frederico, it is desirable in an international class to restrict costs by requiring this. Do you want to allow wolfram bulbs ? This is an error. I forgot to include the limitation right in the Original Rules!

- (b) The forward 5 mm (+/- 1 mm) shall be of elastomeric material.

Graham, the current class rule mentions (+- 1 mm).

We should not change that to an exact value as there are currently yachts with bumpers of 4 or 6 mm. Four or 6 mm is equal to 5mm +/- 1mm!!!

D.2.3 CONSTRUCTION

- (a) The **hull** shall be a **monohull**.
- (b) Except for the trunking for **hull appendages**, the **hull** shall not have:
- (1) voids in the waterplane and/or the underwater profile,
 - (2) hollows in the plan view and/or the underwater profile that exceed 3 mm,
 - (3) transverse hollows in the undersurface of the **hull** that

exceed 3 mm when tested parallel to the waterplane as in Figure I.2.

D.2.4 DIMENSIONS

	minimum	maximum
Hull length in relation to the datum waterplane including bumper described in Figure I.1.	649 mm	661 mm

D.2.5 FITTINGS

Fittings shall not project fore or aft or transversely outboard of the **hull** in relation to the datum waterplane described in Figure I.2.

Section E – Hull Appendages

E.1 GENERAL

E.1.1 RULES

Hull appendages shall comply with the current **class rules**.

E.1.2 CERTIFICATION

Certification shall be carried out in accordance with the ERS except where varied in these **class rules**.

E.2 HULL APPENDAGES

E.2.1 MATERIALS

Materials shall not be of density higher than lead (11,340 kg/m³).

Section F – Rig

F.1 PARTS

A **rig** shall consist of no more than:

- (a) one **mast**, <---- **NO LIMITS: Any number of masts**
- (c) three **booms**, <---- **NO LIMITS: Any number of booms**
- (d) **standing rigging**, <---- **NO LIMITS**

(e) **running rigging.** <---- **NO LIMITS**

(f) **wind indicators** <---- **NO LIMITS**

Booms : I see no reason to change these unless you think four booms would be useful. This was done in the M Class because a USA swing rig used a boom between the fore yard and the headsail boom. The purpose of this boom was to allow the tack of the headsail to droop down to leeward. It is a simple design and we thought it important to permit it. As it happens permitting four booms also permits the FRA style of swing rig where a vertical spar controls the aft end of the headsail boom. I changed (c) to four booms. **Please, NO LIMITS! Let's see what our inventive Skippers show up!**

F.2 GENERAL

F.2.1 RULES

Rigs shall comply with the current **class rules**.

F.2.2 CONSTRUCTION

- (a) A fitting shall be no bigger than is reasonably required for its purpose if it rotates or is attached to a rotating **spar**.
- (b) A fitting faired into a **spar** shall be considered to be part of the **spar**.

F.3 SPARS

F.3.1 MEASUREMENT

- (a) The **mast** and **boom spar** cross section:
 - (1) shall be taken to include: fairings, extensions, articulated flaps,
 - (2) shall be taken with movable parts set to give the greatest dimension,
 - (3) shall be taken at the junction of two **boom spars** as in Figure I.5 and
 - (4) except as in 3, at a point shall be the largest cross sectional dimension perpendicular to the major axis of the **spar** at that point.
- (b) A **boom spar** which extends fore and aft of the mast **spar** shall be taken as two **boom spars**.

F.3.2 CONSTRUCTION

- (a) **Limit marks** shall contrast strongly with the colour of the surface they are placed on.
- (e) A **boom spar** with a cross section exceeding 12 mm as permitted by F.3.4 shall not be joined to another **boom spar** at that point.

F.3.3 MAST SPAR DIMENSIONS

	minimum	maximum
Mast spar cross section above deck limit mark		12 mm

Graham mentioned that 12 mm mast spar cross section allow to build aerofoil masts (turnable) and he proposed a rule which prevents that.

Unwritten criteria is that if a spar does NOT fit within the 12mm diameter, its PROFILE AREA should be considered as SAIL AREA and included in that calculations.

From my experiences with the RG65 community in Germany I know, that this would not produce much joy.

What do you think on that proposal?

What would the current world wide community say?

Sometimes just such changes cause big resistance. **With due justification!**

F.3.4 BOOM SPAR DIMENSIONS

	maximum
Length of junction where boom spars meet, as in Figure I.3	60 mm
Maximum combined boom spar cross section over the length of a junction, as in Figure I.3	25 mm

Section G – Sails

G.1 PARTS

The sail plan is **UNRESTRICTED** ~~restricted to no more than:~~

- (a) ~~one mainsail,~~
- (b) ~~one headsail.~~

Trilateral ommited.

Frederico, I don't see that e.g. a gaff rig is that what the author of the orgin rules wants. Do you have other hints. **Some people (me included) are working on sort of GAFF RIGS!** That is not as foolish as some may think!

G.2 GENERAL

G.2.1 RULES

Sails shall comply with the **class rules** in force at the time of their initial **certification measurement** or with the current **class rules**.

G.2.2 CERTIFICATION

The official measurer shall:

- (a) **certify sails** at the **tack**,
- (b) mark **sails** with the date of **certification measurement**,
- (c) **alternative: at Event Registration the Skipper must provide a dimensioned squeme, complete with area calculation, of each of the rigs he will use. This Declaration is binding and can be verified if the Race Commitee so decides.**

G.2.4 MEASUREMENT

During measurement **sails** may be attached to **spars**.

G.2.5 CONSTRUCTION

- (a) The construction shall be: **soft sail**. < Why?

I see no reason to change it. If solid rigs are permitted there may be complications with area measurement, there may be a lot of time, effort, energy and cost spent pursuing something that will not work (and this is not a good advert for any class). **Not so. Measuring a soft or a hard sail takes the same effort! But measuring sails at all is no sense. Declare what you are going to use and you are done. If you are cheating you get FIRED, EXPULSED. Part of the fun of this Class is experimenting with sails!**

And again, does anybody have a hint , that solid sails were wanted as opportunity within the origin class rules?

YES, they were considered possible, just because this is an OPEN DEVELOPMENT CLASS.

- (b) **Sails** shall be marked at the **clew** with their rig letter.

G.3 SAIL AREA

G.3.1 LIMITATION

- (a) The measured sail area of each rig/sail group, A, B or C, shall not exceed 2250 cm².

G.3.2 CALCULATION

The measured sail area of each rig/sail group, A, B or C, is the sum of the area of the **sails** used together in each rig/sail group.

Is it permitted to use a sail of one rig/sail group with the sail of another?

Gentlemen, want do you think? From the origin rule I cannot answer it. Original idea was to enable sail combinations. But no effective use of this freedom did evolve.

PART III – APPENDICES

Section H – Measurements

H.1.1. MEASUREMENT

- (a) Where the **sail** has no clearly defined **head point**, **tack point** and/or **clew point**, permanently marked point(s) on the sail shall be used instead.
- (b) The **sails** shall be placed over the measurement grid with the **clew point** on a grid line and with the **head point** and **tack point** on a line perpendicular to the grid lines. See figures I.4. and I.5.
- (c) If the **tack point** falls above the grid line on which the **clew point** is placed, the **sail** shall be moved vertically until the **tack point** is on a grid line. See Figure I.4. and I.5.
- (d) The upper limit of area A1 shall be marked at the **luff** and **leech** where they pass over the grid line. See figure I.4.
- (e) Cross widths, c_0 to c_n , shall be measured from the **leech** to the **luff** at and along all the horizontal grid lines which the **sail** cuts. See Figure I.4. and I.5.
- (f) Heights, h_0 to h_n , shall be measured from the grid line to the **foot** at and along all the vertical grid lines which the **sail** cuts. See Figure I.4. and I.5.
- (g) Hollows in the **sail edges** shall be bridged by a straight line and cross widths and heights shall be taken to the bridging line. See Figure I.4.

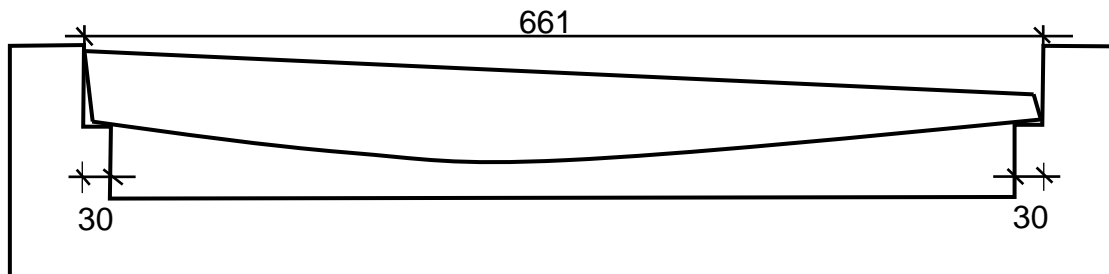
H.2.1. CALCULATION

- (a) The major area, A1, is calculated as:
$$A1 = 50 (c_0 + c_n) + 100 (c_1 + c_2 + \dots + c_{n-1})$$
- (b) The head area, A2, is found from c_n , c_{n-1} and E using a calculation contained in the measurement form where E is the height of the sail above the uppermost grid line. See Figure I.6.
- (c) The area below the **luff perpendicular**, A3, is calculated as:
$$A3 = 20 (h_0 + h_n) + 40 (h_1 + h_2 + \dots)$$
- (d) The sum of the areas, As, is calculated as:
$$As = A1 + A2 + A3$$

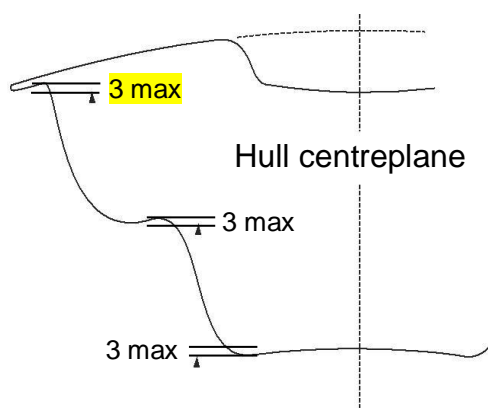
Section I – Figures

I.1 LENGTH RESTRICTION GAUGE

Gauge used to establish length and datum waterplane.



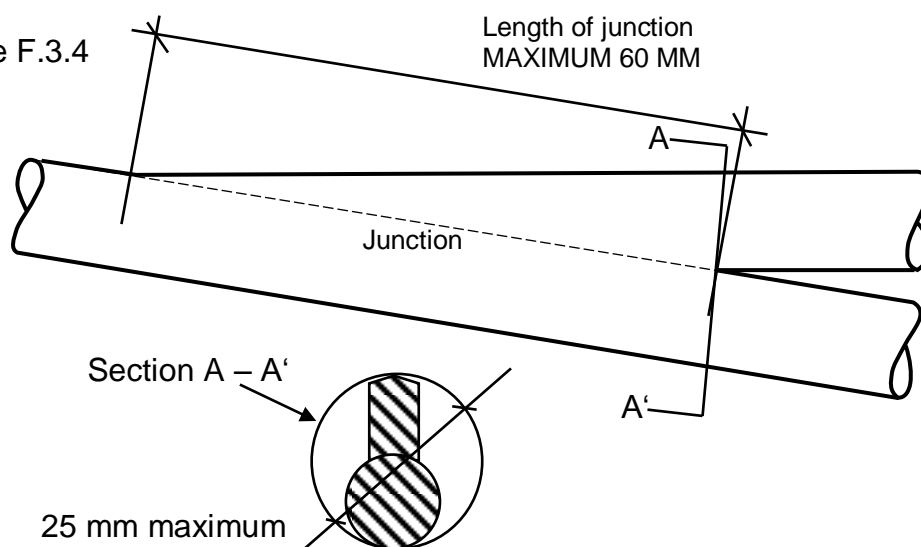
I.2 TRANSVERSE HULL HOLLOW



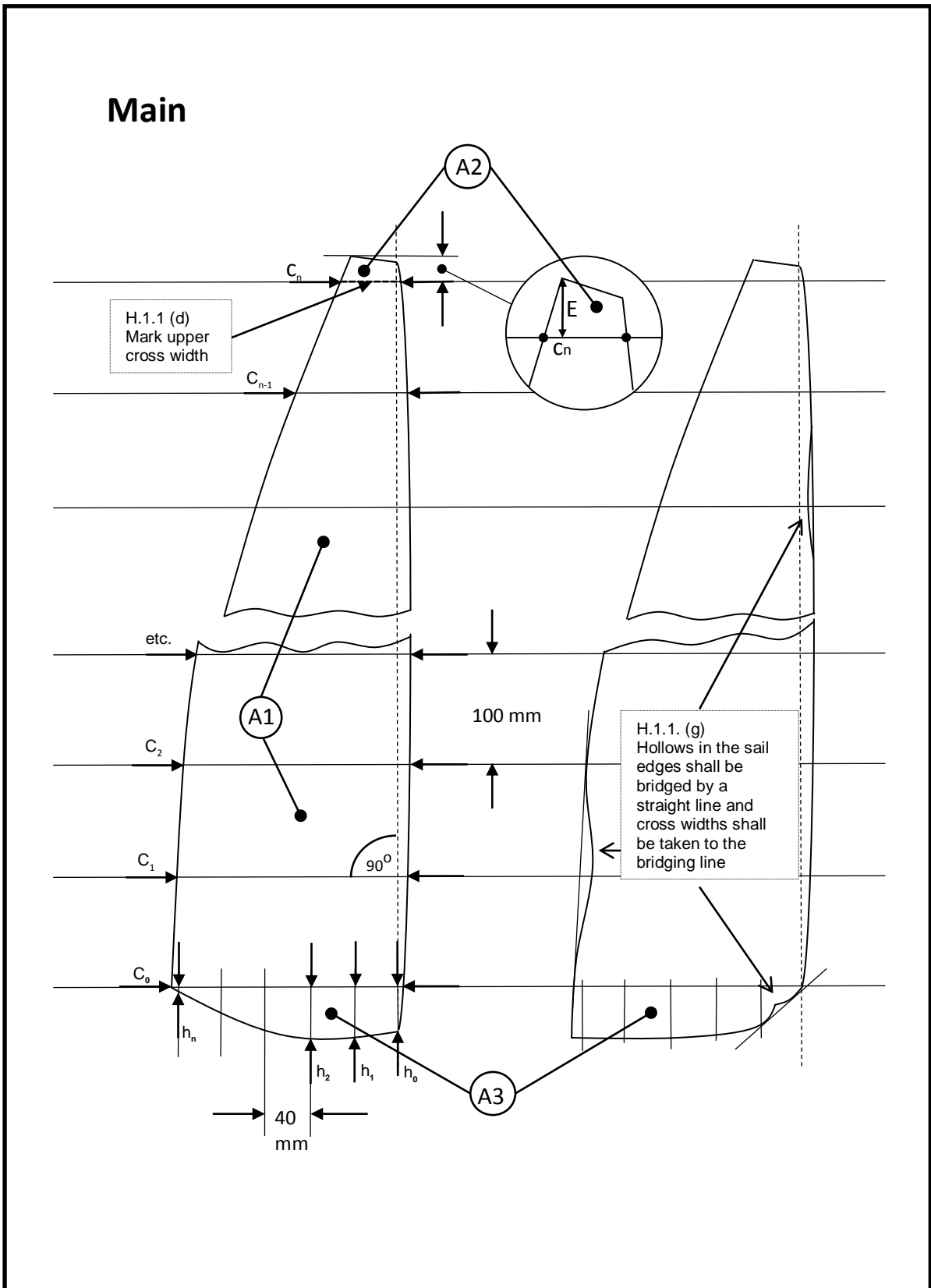
See rule D.2.3 (b) (3)

I.3 COMBINED BOOM SPAR CROSS SECTION

See rule F.3.4

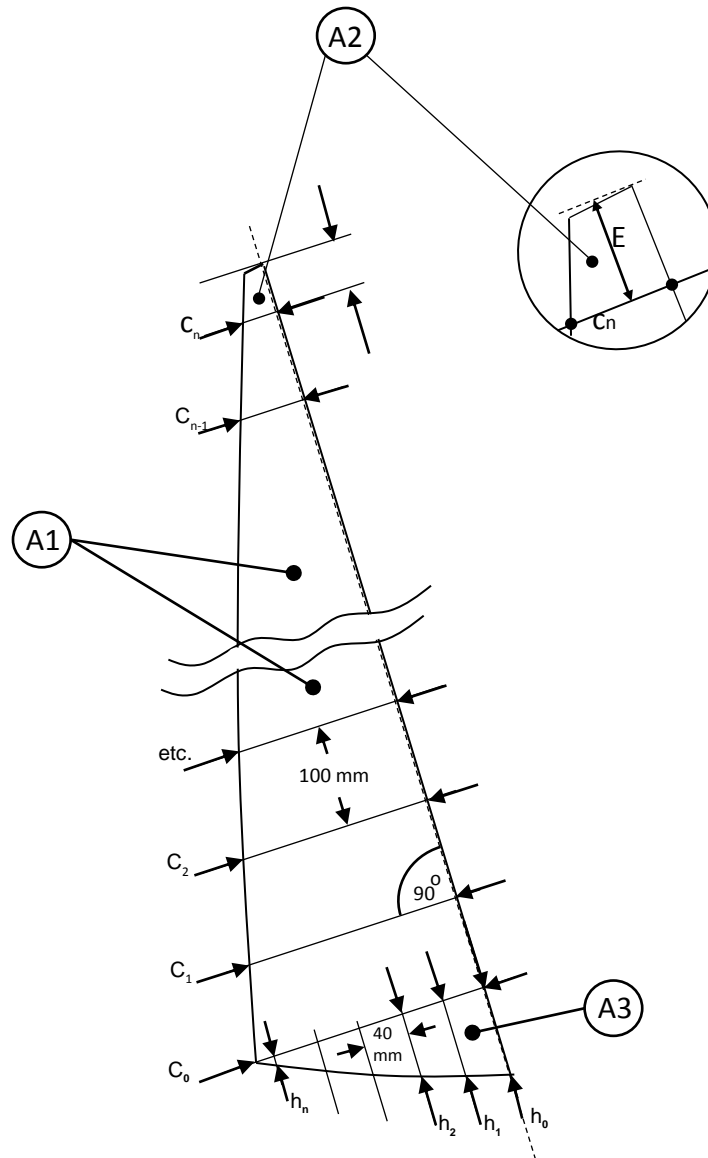


I.4. SOFT SAIL MEASUREMENTS (Main)

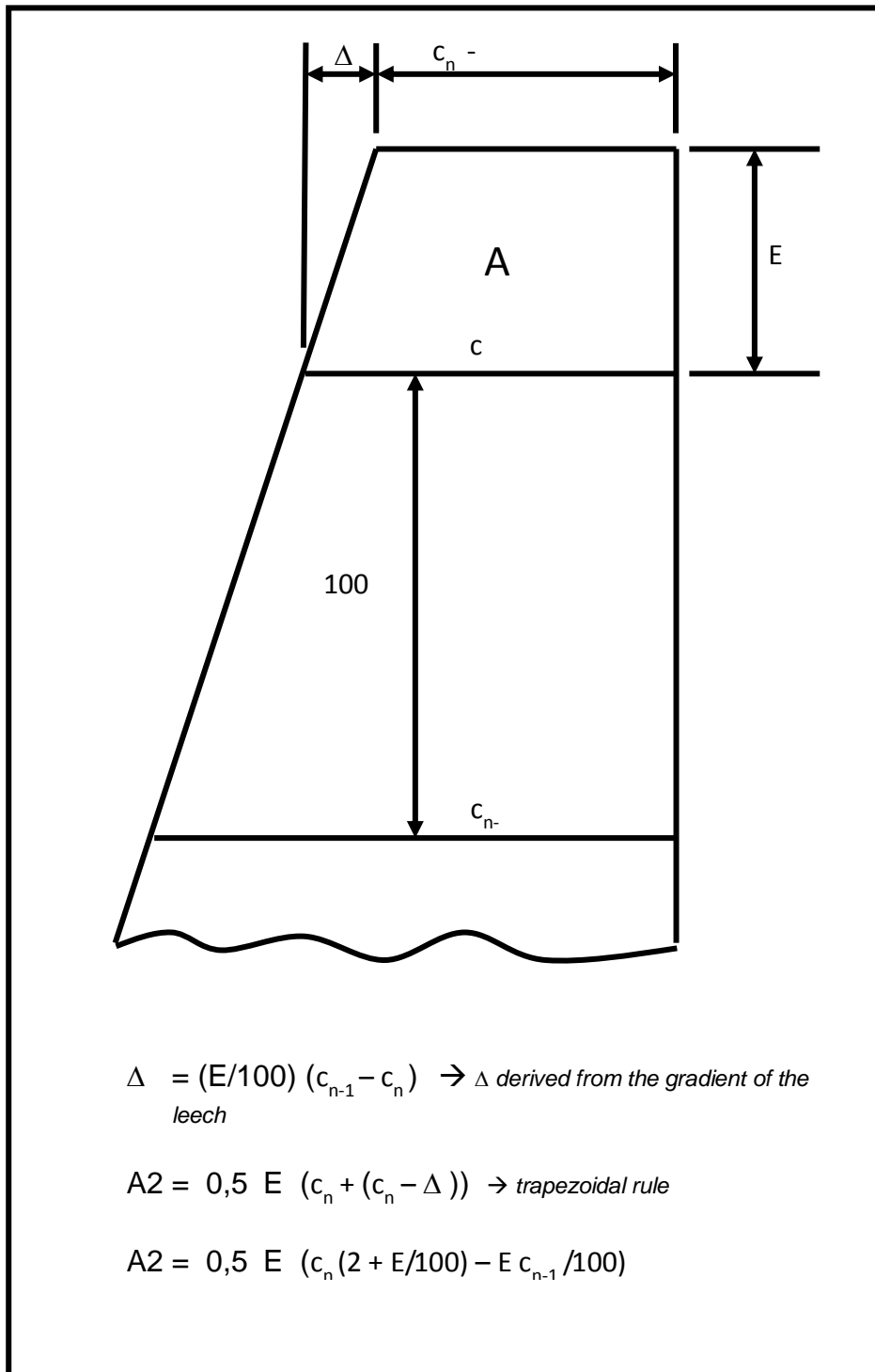


I.5. SOFT SAIL MEASUREMENTS (Jib)

Jib



I.6. Calculation of area A2



Effective: 2016 ???

Previous issues: no one