JCH®
JAUGE CLASSIQUE
CLASSIC HANDICAP

Real Federación Española de Vela

JCH 2025 Rules

2025 EDITION – MARK XXV

2025 edition changes are in red.

PREAMBLE

The **Jauge Classique Handicap - JCH –** is a handicap system designed to allow classic boats with very different characteristics to race together, each having an equal chance of winning.

The seven core principles are :
• **Adaptability** to the requirements of classics : designed for a time defined fleet emphasizing fidelity to the original construction
• **Equalty** : to give each boat an equal chance
•**Self certification** using straightforward measurements
• **Free** certificate
• **Universality** : designed for regattas utilising a individual race result, either time on time or time on distance, for all sizes and types of classic boats.
• **Transparency** : the formula is in the public domain and is evolutional
• **Objectivity** : based on strictly measurable criteria

SECTION AGENERAL

A.1.LANGUAGE

A.1.1. The official language of the class is French and in case of dispute over translation the French text shall prevail.

A.1.2. Unless used in a title :

- When in bold, the definition given in the World Sailing **ERS** document or in the present document applies to the word.
- when in italics, the definition given in the **RSS** applies to the word

A.2.ABBREVATIONS & DEFINITIONS

A.2.1. Measurements of the boat

Abbreviation	DEFINITION	Reference
L_H or LOA	Length of the hull	ISO 8666 : 4.2.2 **ERS** : D.3.1

Abbreviation	DEFINITION	Reference
L_{WL}	Waterline length	**ERS** : C6.4.c
L	Dynamic waterline length	**JCH :** D.1.1
LQ	Keel Lenght	**JCH :** C.7.3
B_H	Boat beam	**ERS :** C.6.4.b
TE	Draft	
TE_{DB}	Draft with centreboard down	
TE_{DH}	Draft with centreboard up	
FD	Displacement factor	**JCH** : D.1.3
P	Distance measured on the mast between lower limit mark for setting the boom and the upper limit mark for setting the sail.	
E	Distance measured on the boom between its outer point and the aft edge of the mast	
MHB	Mainsail top width	**ERS** : G.7.9 (a)
MUW	Mainsail seven-eighth width	**ERS** : G.7.8 (a)
MTW	Mainsail three-quarter width	**ERS** : G.7.6 (a)
MHW	Mainsail half width : shortest distance between the half leech point and the luff	**ERS** : G.7.5 (a)
MQW	Mainsail quarter width	**ERS** : G.7.4 (a)
HLU	Head sail luff length (Jib, Genoa, Code 0 or cruising chute)	**ERS** : G.7.3
HLE	Head sail leech length	**ERS** : G.7.2
HHW	Headsail half width : shortest distance between the half leech point and the luff	**ERS** : G.7.5 (a)
HLP	Headsail shortest distance between the clew point and the luff (Jib, Genoa, Code 0 or cruising chute)	**ERS** : G.7.12

Abbreviation	DEFINITION	Reference
HMW	Headsail half width (Jib, Genoa, Code 0 or cruising chute) Distance between the half luff point and the half leech point.	
HF	Headsail foot lenght	**ERS** : G.7.3
SL	Maximum dimension for SLU and SLE	
SLU	Symmetrical spinnaker luff length	**ERS** : G.7.3
SLE	Symmetrical spinnaker leech length	**ERS** : G.7.2
SHW	Symmetrical spinnaker half width length. The distance between the half luff point and the half leech point.	**ERS** : G.7.5 (b)
SFL	Symmetrical spinnaker foot length	**ERS** :G.7.1
ALU	Asymmetrical spinnaker luff length	**ERS** : G.7.3
ALE	Asymmetrical spinnaker leech length	**ERS** : G.7.2
ASL	Asymmetrical spinnaker mean luff length = (ALU+ALE)/2	
AMG	Asymmetrical spinnaker half width length. The distance between the half luff point and the half leech point.	
ASF	Asymmetrical spinnaker foot length	**ERS** : G.7.1
MAE	Gaff mainsail leech	
MAH	Gaff mainsail head	
MAU	Gaff mainsail luff	
MAD	Gaff mainsail diagonal : distance between the head point on the luff and the clew point.	
MAF	Gaff mainsail foot	
FIE	Fisherman leech	
FIH	Fisherman head	
FIU	Fisherman luff	

Abbreviation	DEFINITION	Reference
FID	Fisherman diagonal : distance between the head point on the luff and the clew point.	
FIF	Fisherman foot	
FF	Top sail foot	
FE	Top sail head	
FU	Top sail luff	

A.2.2. Reference documents

RRS	Racing Rules of Sailing
ERS	Equipment Rules of Sailing
OSR	Offshore Special Regulations
WS	World Sailing

A.2.3. Vocabulary

Owner	Owner or manager of the boat
Skipper	Captain during races

A.3. *NOT USED*

A.4. AUTHORITIES

The class is managed by the JCH council.

A.5. *NOT USED*

A.6. CLASS RULES VARIATIONS

JCH rules are defined by the JCH council.

A.7. CLASS RULES INTERPRETATION

Interpretation of JCH rules is under the responsibility of the JCH council.

A.8. SAIL NUMBERS

A.8.1. They are managed by national authorities and specified on the JCH certificate.

A.8.2. Positioning and dimension of sail numbers shall be compliant to RSS appendix G. It is not mandatory to display the sail number on head sails and spinnakers.

A.9.*NOT USED*

A.10. CERTIFICATION CONTROL AND EQUIPMENT INSPECTION

Certification control and equipment inspection may be required by the JCH council or race committees.

A.11. JCH CERTIFICATE

They are established by the JCH council from the declarations of the **owner.**

A.12. CERTIFICATE VALIDITY

A.12.1. Validity of certificates is limited to March 1st of the next year.

A.12.2. Each year, certificates are automatically updated according to the new rules during a period of 3 years.

A.12.3. The online certificate available on the JCH website is the sole reference.

A.12.4. A certificate becomes invalid upon :

- Expiry of the validity duration
- Any alteration of characteristics of a boat after its certificate delivery.
- Any non compliance of the boat to data reported on its certificate
- **Ownership** change

A.12.5. Characteristics change

A.12.5.1. Minor change

A change of boat specification requiring an update of its JCH certificate is limited to two per calendar year.

A.12.5.2. Major change

Changes which are considered as major change are those affecting the hull (change of the keel shape, change of position of the rudder, addition of a rear centreboard, etc)
In these cases the vintage bonus (C6) will be established based on the new design year and the launching year after the change.
Changes in the material of spars or in the rigging are not considered as a major change.

SECTION B ELIGIBILITY

Certificates are validated by the JCH council.
Measurements for establishing a certificate or controls on the boats compliance may be done by JCH measurers.

SECTION C CONDITIONS FOR RACING

C.1. GENERAL

C.1.1. Present rules govern the procedure for establishing a JCH certificate.

C.1.2. When validated by the JCH council, skippers must have the certificate onboard and must be able to present it.

C.2. *NOT USED*

C.3. *NOT USED*

C.4. *NOT USED*

C.5. BOAT WEIGHT

C.5.1. Displacement

The displacement to be declared is the loaded displacement, the boat being ready to sail but with no crew onboard. This displacement is expressed in metric tonnes with 2 significant digits.

C.5.2. Fittings

Removal of any fittings to lighten boat, even if not needed for racing, is forbidden. When boats are checked by a measurer, the suitability of fittings will be assessed according to the boat's size.

C.5.3. Stability

No derogation to RRS 49 rule will be granted.
RRS 51 rule concerning *movable ballast* will be strictly applied in all races.

C.6. HULL

C.6.1. Conformity of characteristics

Boats must comply with the characteristics mentioned on their certificate.

C.6.2. Design year

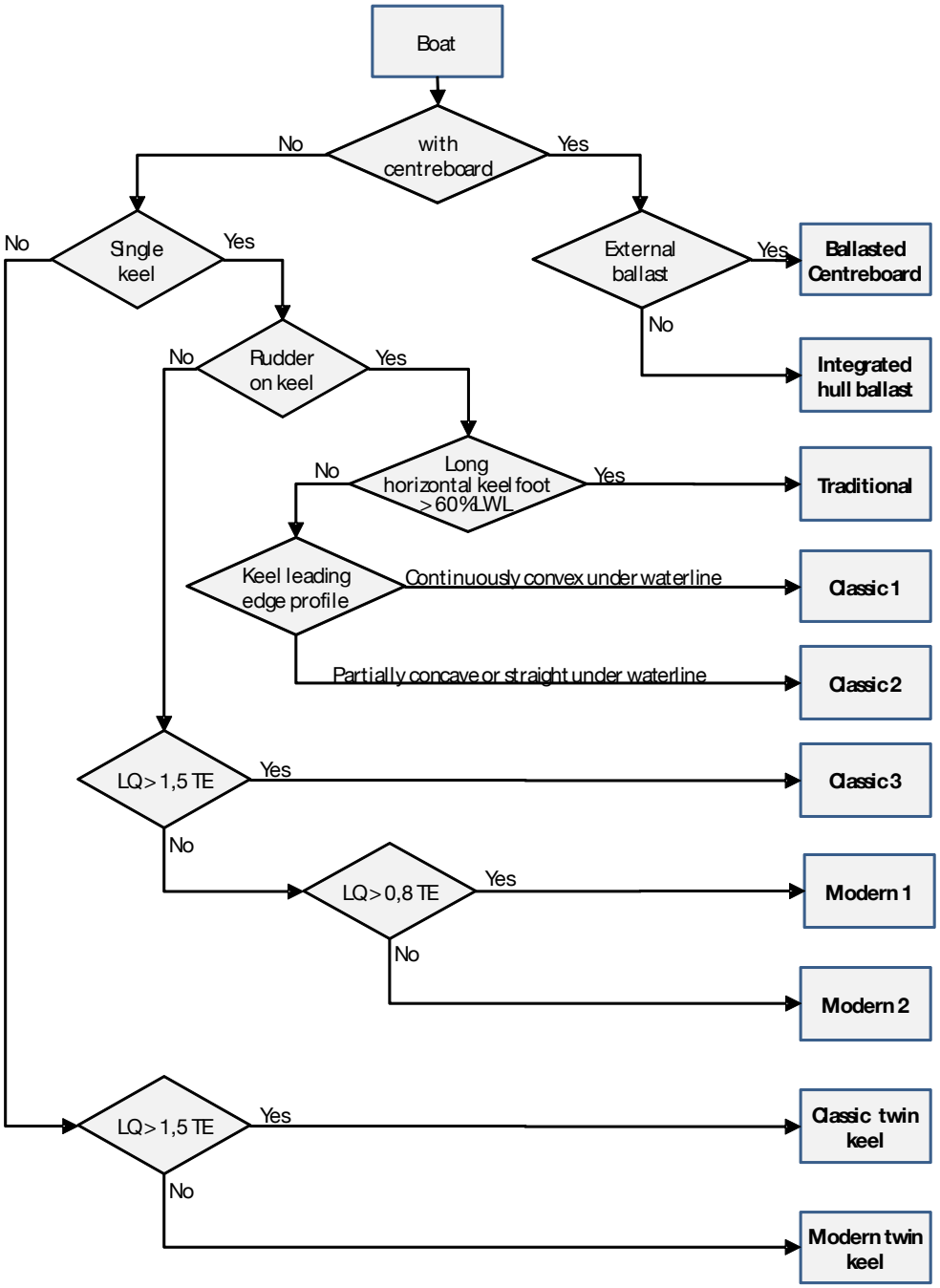
The year taken into account is that of the plan actually used for the construction of the boat.

C.6.3. Construction year

The build year is based on the date when the hull construction substantially commenced.
For boats whose hull has been rebuilt, the year of the rebuilding has to be used. A hull is "rebuilt" when at least two thirds of the structure and planking were changed.

C.6.4. Hull type

The type of hull is determined using the following flow chart.



C.7. HULL APPENDAGES

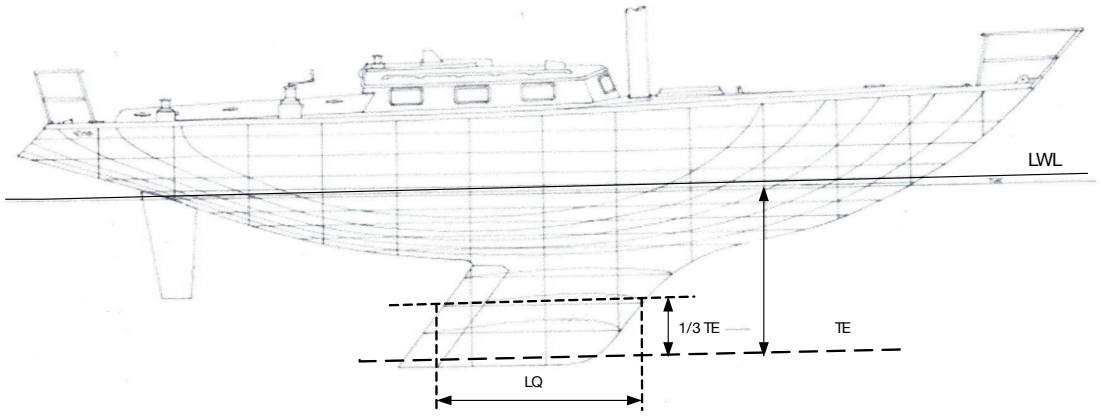
C.7.1. General

Hull appendages must comply to the architect design. In case of change a new study shall be made

C.7.2. Keel length measurement

The keel length (LQ) is measured horizontally at a height equal to 1/3 the draught (TE). This measurement must include a potential trim tab attached at the aft side of the keel.
If LQ > 1,5 x TE : Classic 3 hull.
If LQ ≤ 1,5 x TE and > 0.8 x TE : Modern1 hull.
If LQ ≤ 0.8 TE : Modern2 hull.

This assessment may be made on the basis of a hull plan or a picture of the hull, to be provided when applying for a certificate. In the event that no exploitable document for this assessment is provided, the boat will be considered by default as a modern hull.



C.8. RIG

C.8.1. Mast

Mast must have upper and lower limit marks as defined in **ERS** F.2.1 for measurement of P

C.8.2. Boom

Boom must have an outer limit mark as defined in ERS F.3.1 for measurement of E.

C.8.3. Spinnaker pole

C.8.4. Bowsprit

A bowsprit is permitted, provided it is part of the original design and it cannot be rotated in the horizontal plane.

C.8.5. Spars replacement

Any replacement of spars by new spars is taken into account by factor C3 (D.2.1.3)

C.9. *NOT USED*

C.10. SAILS

C.10.1. General rules

C.10.1.1. Number of sails

The same suit of sails shall be used throughout the duration of an event. In case of damage to a sail which cannot be repaired during an event, the race committee may allow the use of a new sail on the advice of the race measurer. The sailing instructions will specify whether this limitation applies to a series of regattas over a short period.

C.10.1.2. Sail furling system

Sails on furling systems are allowed.

C.10.2. Main sail

C.10.2.1. Main sail number

A boat may carry on each mast a maximum of a regular mainsail, a "Swedish" mainsail without battens and a trysail

C.10.2.2. Bermudan mainsail

The maximum leech round of Bermudan sails is limited to:

- MGM (half width) ≤ 65% E,
- MGU (three-quarter width) ≤ 38% E,
- MGT (seven-eight width) ≤ 22% E
- HB (top width) ≤ 4% E or 0.152 m.

Bermudan sails area : Mainsail, mizzen sail and foresail:

S = 0.575*P*E

C.10.2.3. Gaff sails

Gaff sails area: Mainsail, mizzen sail and foresail :

S = √(V*(V-MAE)*(V-MAH)*(V-MAD))+√(W*(W-MAU)*(W-MAD)*(W-MAF))

Where V=0,5*(MAE+MAH+MAD) et W=0,5*(MAU+MAD+MAF)

C.10.2.4. Topsail

Topsail area :

S = √(Q*(Q-FF)*(Q-FE)*(Q-FU)) where Q=0,5*(FF+FE+FU).

C.10.3. Head sails

C.10.3.1. Jib, high cut jib, staysail, flying jib, genoa

C.10.3.1.1. Definition

These sails have its luff attached to a stay and a half width (**HMW**) less than 55% of its foot (**HF**).
Battens are allowed but will receive a penalty.

C.10.3.1.2. Area :

S=HLP*HLU*0,522

C.10.4. Reaching sails (eg Cruising Chute, Fisherman, Mizzen Staysail).

A triangular sail for reaching has a half width (HMW) greater or equal to 55% and shorter than 75% of its foot (HF) except for mizzen stay sails for which the criteria for half width is less than 75% of its foot.

C.10.4.1. Cruising chute

Cruising chute area:

S=HLU*HLP*0.625

The measurements are to be displayed on the handicap certificate: luff length (HLU), luff perpendicular (HLP), foot length (HF), half width (HMW).

C.10.4.2. Fisherman

Fisherman area:

$$S = \sqrt{V*(V-A)*(V-B)*(V-D)} + \sqrt{W*(W-C)*(W-D)*(W-E)}$$

$$\text{where } V=0{,}5*(A+B+D) \text{ and } W=0{,}5*(C+D+E)$$

C.10.4.3. Mizzen staysail

Mizzen staysail area :

$$S = 0{,}5 * (ALU+ALE)*(ASF+4AMG)/6$$

C.10.5. Downwind sails (symmetric or asymmetric spinnaker).

C.10.5.1. Definition

A downwind sail has a half width length (**SHW**) greater than 75 % of its foot (**SFL or ASL**).
Only sewn panels of Nylon or other similar polyamide are allowed.
No battens are permitted

C.10.5.2. Symmetric spinnaker

Symmetric spinnaker area:

$$S = SL*(HF+4SHW)/6$$

Their measurements are to be displayed on the handicap certificate: leech length (**SL**), foot length (**SFL**), half width (**SHW**).

C.10.5.3. Asymmetric spinnaker

Asymmetric spinnaker area:

$$S = 0{,}5 * (ALU+ALE)*(ASF+4AMG)/6$$

The measurements are displayed on the handicap certificate: luff length (**ALU**), leech length (**ALE**), foot length (**ASF**), half width (**AMG**).

C.10.5.4. Number of authorised downwind sails

The number of downwind sails carried on board may be no more than three.
Big-boys, tall-boys, spinnaker staysails and other special sails are allowed if their area is smaller than 75% of largest downwind sail. There are not taken into account neither for the sail area nor for the number of downwind sails.

C.10.6. Use of sails

C.10.6.1. Two jibs or genoas can be set simultaneously when sailing downwind. Only one may be poled out, and no spinnaker may be set at the same time.

C.10.6.2. Only one jib or genoa can be used with a spinnaker provided it is attached to a stay.

C.10.6.3. Tacks of downwind sails can be attached to :

- A spinnaker pole with one end attached to the mast,
- A bowsprit if provided in the original plan,
- The stem of the boat (but not the pulpit)

C.10.7. SAIL MATERIAL

C.10.7.1. Mainsails, mizen sails, headsails and reaching sails.

C.10.7.1.1. **Type 1** : sails made of woven natural material (cotton, linen, hemp) will receive a bonus.

C.10.7.1.2. **Type 2** : the following type of material are considered as standard material for the sail, the batten gussets and strengthening pieces. Woven polyester fabrics (PET, PEN, DACRON, VECTRAN) , high density polyethylene fabrics (Dyneema) and laminated fabrics with polyester scrim core (PET, PEN) and with polyester woven taffeta either side.

C.10.7.1.3. **Type 3** : The following types of material are allowed but will be penalised. Sails made of laminated polyester fiber between 2 mylar films (film / film), Aramid, carbon, technora, twaron, vectran and other "exotic" fibers made of stitched panels, as well as membrane (3DL, DIAXM, TAPE DRIVE, TRILAM, FUSION or similar), with or without taffeta.

C.10.7.2. Spinnakers and other downwind sails shall be made of nylon or other similar polyamide fabrics.

C.11. USE OF ELECTRICAL EQUIPEMENT

Equipment using stored energy :

- Electronics : all electronic aids to navigation are permitted.
- Autopilot : Permitted unless the SI's state otherwise.
- Windlass : Permitted unless the SI's state otherwise.

SECTION DRATING CALCULATION

D.1. RATING (R) FORMULA

$$R = \frac{L * \sqrt{S}}{6 * \sqrt[3]{FD}}$$

D.1.1. L calculation

L is the dynamic waterline length

$L = L_{WL} + 0{,}5x(L_H - L_{WL})$ in metres.

With L_H Length of hull in metres
L_{WL} Length Water Line in metres

D.1.2. S calculation

S is the total sail area

S = SGV +SVP + SVL + SVGL

D.1.2.1. **SGV :** Mainsail Area + Foresail area or Mizzen area or Wishbone area or mizzen sail area + Gaff topsail area

D.1.2.2. **SVP :** 70% of area of the largest headsail (Genoa) or of the combination of headsails used simultaneously for reaching (cut jib, staysail flying jib). In case of no headsail, the area of the largest reaching sail will be used**.**

D.1.2.3. **SVL :** 10% of (area of the largest reaching sail (flying chute) + largest staysail + largest fisherman on each mast)**.**

D.1.2.4. **SVGL :** 30% of area of the largest downwind sail (spinnaker). If no downwind sail, 30% largest area :

- Area of the largest genoa or of the combination of headsails used simultaneously for reaching (jib, staysail, flying jib, ...)
- or, Area of the largest reaching sail (Cruising Chute, Fisherman, Mizzen Staysail)

D.1.3. FD calculation

The Displacement Factor (FD) calculation depends on the hull type :

D.1.3.1. Traditional : $FD=LWL1.15*BH^{1.40}*TE^{1.30}/11.5$

D.1.3.2. Classic 1 and twin keel : $FD=LWL^{1.1}*BH^{1.4}*TE^{1.25}/11.5$

D.1.3.3. Classic 2 : $FD=LWL^{1.04}*BH^{1.40}*TE^{1.25}/11.5$

D.1.3.4. Classic 3 : $FD=LWL^{1.0}*BH^{1.35}*TE^{1.20}/11.5$

D.1.3.5. Integrated ballast centreboard: $FD=(0.22*LH+(1-0.22)*LWL)^{1.1}*BH^{1.5}*TEdh^{0.35}/22.0$

D.1.3.6. Ballasted centreboard : $FD=(0.22*L_H+(1-0.22)*L_{WL})^{1.03}*B_H^{1.50}*TE_{DH}^{0.55}/11.5$

D.1.3.7. Modern1 : $FD=L_{WL}^{0.95}*B_H^{1.20}*TE^{1.10}/11.5$

D.1.3.8. Modern2 : $FD=L_{WL}^{0.90}*B_H^{1.20}*TE^{1.0}/11.5$

The maximum draft shall be the draft as per the design draft unless it has been measured subsequently.

D.1.4. In series production boats

Hull characteristics of in-series production boats are those declared to the F.F.Voile by the designer or the builder, a list is available on the JCH website.

In case a series does not appears on this list, a notification to JCH must be made for adjudication.

D.2. CORRECTED RATING (RC) CALCULATION

Rc = R x C

D.2.1. Correction factors

The correction factor C is calculated according to the formula :

C= C1 x (1+C2+C2a) x (1 +C3.2) x (1+C3.3+C3.4) x (1+C3.5) x (1+C3.6) x (1+C4) x (1+C5)x(1+C6)x(1+C7)

D.2.1.1. C1 - Rigging type

D.2.1.1.1. Bermudan sloop or cutter 1,000

D.2.1.1.2.	gaff or gunter cutter or sloop	0,880
D.2.1.1.3.	Bermudan yawl	0,980
D.2.1.1.4.	gunter yawl	0,840
D.2.1.1.5.	gaff yawl	0,840
D.2.1.1.6.	bermudan or wishbone ketch	0,980
D.2.1.1.7.	Gaff or gunter ketch	0,730
D.2.1.1.8.	bermudan or wishbone schooner	1,000
D.2.1.1.9.	bermudan catboat:	0,900
D.2.1.1.10.	Topsail schooner	0,730
D.2.1.1.11.	Bermudan 3 masted schooner	0,850

D.2.1.2. C2 and C2a - Hull type

D.2.1.2.1. C2 factor

C2 and Kref depend on the hull type :

	C2	Kref
Ballasted centreboard	- 0,1	0,211
Integrated ballast centreboard	0	0,184
Traditional	-0,086	0,160
Classic 1	-0,03	0,171
Classic 2	-0,03	0,179
Classic 3	-0,01	0,188
Modern1	0,01	0,191
Modern2	0,04	0,191

D.2.1.2.2. C2a factor

A coefficient K is used to take into account the draught :

$$K=TE/L_{wl}$$

The Kref is K reference value for each type hull type defined hereafter.
Boats receive a bonus or a penalty depending of the K value :

$$C2a = 2(K - Kref)$$

D.2.1.3. C3 - Sails and spars

D.2.1.3.1.	Type 1 sails	C3.2 = - 0,150
D.2.1.3.2.	Type 2 sails	C3.2 = 0
D.2.1.3.3.	Type 3 sails (see note) :	C3.2 = 0,085

D.2.1.3.4. Where the mast or boom are different from the original

This correction factor applies when the new mast material is aluminium or carbon, whatever the original material (wood, aluminium, ...).

C3.3 = 0.02 x (Year M - Year P)/(Year X - year P)

where : **Year P** is the design year, **Year M** is the year of the mast change and **Year X** is the current year

D.2.1.3.5. Other spar which are different from original

This correction factor applies when the new mast material is aluminium or carbon, whatever the original material (wood, aluminium, ...).

C3.4 = 0.01 x (Year M - Year P)/(Year X - year P)
where : **Year P** is the design year, **Year M** is the year of the spar change and **Year X** is the current year

D.2.1.3.6. Mast and/or boom made of material other than wood, aluminium or steel (see note)

C3.5 = 0,050

D.2.1.3.7. No winches (providing the original design is with no winches)

C3.6 = - 0,050

D.2.1.3.8. Penalty in case of battens in headsails

final sail area = S*1,15

Note : * This equipment is clearly discouraged by JCH from being on classic yachts. However, in order to allow regatta organisers flexibility on their eligibility rules, the above penalties are considered as appropriate.

D.2.1.4. C4 - Hull material

D.2.1.4.1.	Traditional wood	-0,030
D.2.1.4.2.	Laminated / Moulded wood	0,020
D.2.1.4.3.	Plywood	0,000
D.2.1.4.4.	Aluminium	0,050
D.2.1.4.5.	Iron / steel	0,030
D.2.1.4.6.	Other	0,050

D.2.1.5. C5 - Inboard engine

Boat shall be equipped of an appropriate size propeller, that is that the engine and propeller are able to move the boat forward during five minutes at a minimum speed of:

$$1{,}811 \times L_H^{0,5}$$

D.2.1.5.1.	No propeller permanetly fixed below waterline	0,00
D.2.1.5.2.	folding/feathering	- 0,01
D.2.1.5.3.	2 centre line fixed bladed	- 0,05
D.2.1.5.4.	2 off centre fixed blades	- 0,08
D.2.1.5.5.	fixed 3 bladed propellor	- 0,08

No distinction is made between off centre 3 bladed and centre line 3-bladed propellers

~~D.2.1.5.6. others 0,00~~

C5 values are independent of the number of propeller.

Outboard engines installed permanently in a recess will be considered as equivalent to inboard engines if the shaft is from the original design and the permanent position of the engine certified by a measurer.

D.2.1.6. C6 - Vintage bonus

Vintage bonus

C6 = C6.1+C6.2

Where : C6.1 = Build year
C6.2 = Design year
Same formula is used for C6.1 and C6.2 :

Until 1955 : **C6.x = year / 1000 - 1,95**

From 1956 on : **$C6.x = (0{,}00168 \times year^4 - 3{,}27015 \times year^3)10^{-10}$**

D.2.1.7. C7 –Boat Performance Classes

Depending on their characteristics, boats are classified in 4 performance classes.

D.2.1.7.1. Performance class 1

Boats when meeting at least 4 of the following criteria :

1. Keel boat,
2. Dayboat for shelter waters (In particular the absence of a self-draining cockpit)
3. Fractional Bermudan sloop rigging (forestay not on top of the mast) or gaff or gunter sloop.
4. No pulpits or stanchions on the original design.
5. Simplified internal arrangements compared to boats of the same length and same period (In particular absence of fixed toilet)

This class includes in particular metrics, square meters, Requins, Dragons, Stars, Ailes, Mälar 22, Neptune, etc ...

D.2.1.7.2. Performance class 2

- Boats designed specifically for coastal racing or offshore racing meeting 3 of the following 4 criteria :

  1. Post 1950 design
  2. Prototype construction or small series of less than 10 units.
  3. Simplified arrangements compared to cruisers of equivalent size of the same era.
  4. No coach roof (flush deck)

  Includes boats designed specifically and exclusively for an offshore racing rule(RORC, IOR)

- • Racer cruisers that were « optimized », in particular by lightening the original fittings.
- • One design sporting boats with a specific class rule

  Includes in particular Folkboat, monotypes Rochelais, etc.

- • Boats meeting at least 3 of the following 5 criteria :

  1. Keel boat,

2. Boat not allowed to sail beyond 6 miles from a shelter (in particular absence of a self-draining cockpit)
3. Fractional Bermudan sloop rigging (forestay not on top of the mast) or gaff or gunter sloop.
4. No pulpits or stanchions on the original design.
5. Simplified internal arrangements compared to boats of the same length and same period (In particular absence of fixed toilet)

D.2.1.7.3. Performance class 3

Boats designed for mixed use allowing cruising while having sufficient performance to enter in handicap races for example and not meeting the criteria of Performance class 1 or 2.

D.2.1.7.4. Performance class 4

Boats designed primarily for comfortable cruising or travelling, with no ambition for regattas, with limited concessions to performance under sail and not modified to improve performance. Historical documents proving the pure cruiser character of the boat shall be provided. Otherwise, they will be classed as "performance class 3".

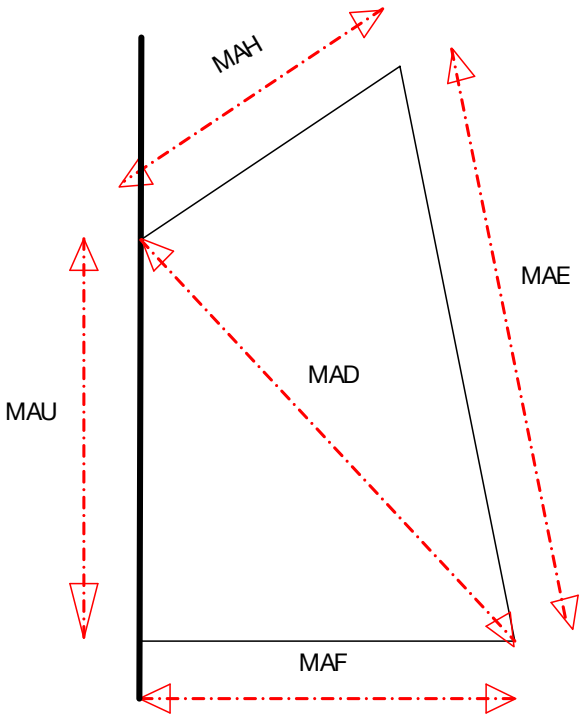
D.2.1.7.5. C7 correction factor value

Performance class 1	0,0125*S/FD
Performance class 2	0.05
Performance class 3	0
Performance class 4	-0.05

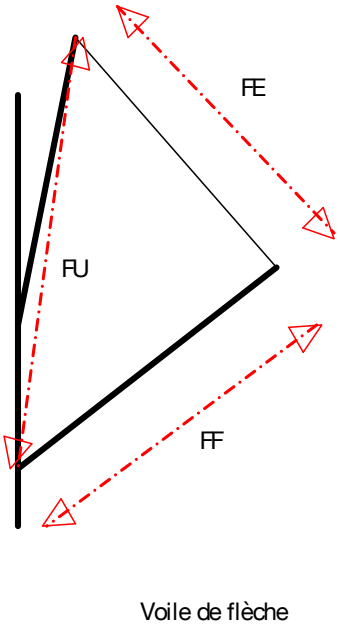
D.3. TIME CORRECTED FACTOR:

$$Ftc = 0{,}3480 + 0{,}1893 \times \sqrt{Rc}$$

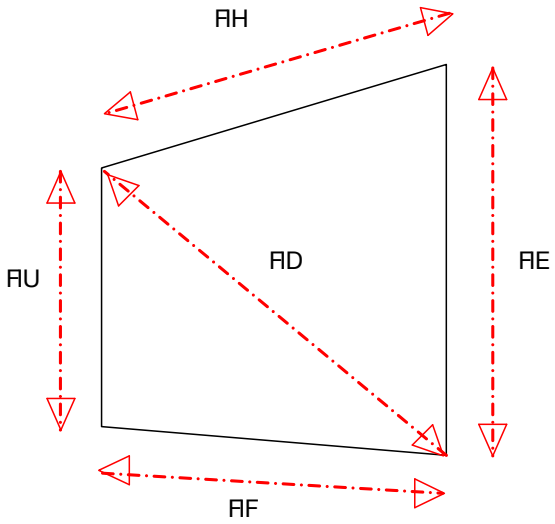
Annex 1 : Measurement of Gaff sails



GV Aurique



Voile de flèche



Fisherman