

JCH12 PRESENTATION

2012 EDITION - MARK XVI
 2012 edition changes are in red.

Preamble:

- A yacht cannot receive more than two JCH certificates per calendar year
- The delivery of a JCH certificate does not have to be understood as the eligibility of the boat to classic regattas. Eligibility to a specific regatta is specified by the eligibility rules the organizer has decided and displayed in the Notice of Race.

1. Rating

$$R = \frac{Lx\sqrt{S}}{6x3\sqrt{D}}$$

Where L = LWL + 0,3x(LOD-LWL) in metres.

S = (Mainsail Area + Foresail area or Mizzen area or Wishbone area or mizzen sail area + Gaff topsail area) + Ax(Sforesails) + (1-A)x(Sdown wind sails) in square metres,
 with A = 0,65 (the principle is that during a season 65% of the race time will be reaching courses)

Sforesails = maxi (Genoa area or High cut jib area + Staysail area or flying jib area + Jib area + Staysail area)

Sdownwindsails = maxi (Spinnaker area or Cruising shute area or Sforesails or Sforesails + Fisherman area or Sforesails + Mizzen Staysail area)

LOD Length Over Deck in metres

LWL Length Water Line in metres

FD Displacement factor in tons, calculated using one of the following formulas in order of applicability:

- | | |
|---|--|
| 1. Long keel boats: | $FD = (L^{1,55} \times B^{1,12} \times G^{0,43}) / 22$ |
| 2. Boats with LOD less than 7 metres : | $FD = (L^{1,32} \times B^{1,18} \times G^{0,45}) / 22$ |
| 3. Centreboard boats : | $FD = (L^{1,50} \times B^{1,17} \times G^{0,40}) / 22$ |
| 4. Set in keel boats (I don't understand this!) | $FD = (L^{1,50} \times B^{1,12} \times G^{0,45}) / 22$ |
| 5. Regatta series (see C7) | $FD = (L^{1,28} \times B^{1,55} \times G^{0,60}) / 22$ |
| 6. Other boats | $FD = (L^{1,50} \times B^{1,15} \times G^{0,70}) / 22$ |

In these formulas, B is the max Beam and G is the draught.

2. Correcting factors C = C1 + C2 + C3 + C4 + C5 + C6 + C7 + C8

. C1 Rigging type (extract of the complete table) :

bermudan sloop or cutter	1,000
gaff or gunter cutter or sloop	0,980
Bermudan yawl	0,980
gunter yawl	0,965
gaff yawl	0,940
bermudan wishbone ketch	0,960
bermudan wishbone schooner	0,940
bermudan catboat:	0,900
Topsail schooner or gaffer ketch	0,850

. C2 Hull type :

drop keel	- 0,050
long keel (straight and long)	- 0,050
classic keel (with garboard strake)	0,000
set-in keel (with no garboard strake)	0,050

Previous correction values must be added to :
 separate rudder

0,100

. C3 Sails :

For spinnakers and cruising shutes, only sewn polyamide is admitted.

Bermudan mainsails with a large head of sail are prohibited.

Black colour is not allowed for movable spars : eg: spinnaker boom, top mast, ...

Main sails and foresails not made of sewn assemblies of panels visibly squared woven* : 0.053xL-0.15

Mast and/or boom made of other material than wood, aluminium or steel* : 0.250

Mast or boom material different from original 0,050

Other spar material different from original 0,050

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Cotton sails	- 0,150
no winches (providing the original design is with no winch)	- 0,050
full length sail battens	0,050

These equipments are clearly not promoted by JCH aboard classic yachts. However, to allow some organizers willing to "extend" their eligibility rules to do so, the appropriate penalty has been developed.

. C4 Hull material :

traditional wood	-0,030
moulded wood	0,020
plywood	0,010
aluminium	0,030
iron / steel	0,030
other	0,050

.C5 Propeller :

3 fixed blades	- 0,110
2 fixed blades	- 0,090
folding/feathering	- 0,030
no propeller	0,000
others	0,030

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3. Corrected rating: $R_c = R \times C$

4. Time corrected Factor: $F_{tc} = 0,4650 + 0,1602 \times \sqrt{R_c}$

5. Corrected time : $T_c = T_r \times F_{tc}$ (with T_r = real time)

. C6 Vintage bonus = C6.1 + C6.2

C6.1 Build year

for boats whose hull has been reconstructed, consider the date of the reconstruction. A hull is considered as "reconstructed" if at least two third of the frame and/or the planking has been changed.

C6.2 Design year

Same formula is used for C6.1 and C6.2 :

Until 1955, $C6.x = \text{year} / 1000 - 1,95$

From 1956 on,

$$C6.x = (0,00168 \times \text{year}^4 - 3,27015 \times \text{year}^3) 10^{-10}$$

. C7 Regatta series, day boats and open boats :

If the yacht is part of a regatta class or is a day boat or an open boat or designed according to a handicap rule (metric, sqm, skerry, jauge universelle, jauge Godinet, linear rater...) **C7 = 0,000**

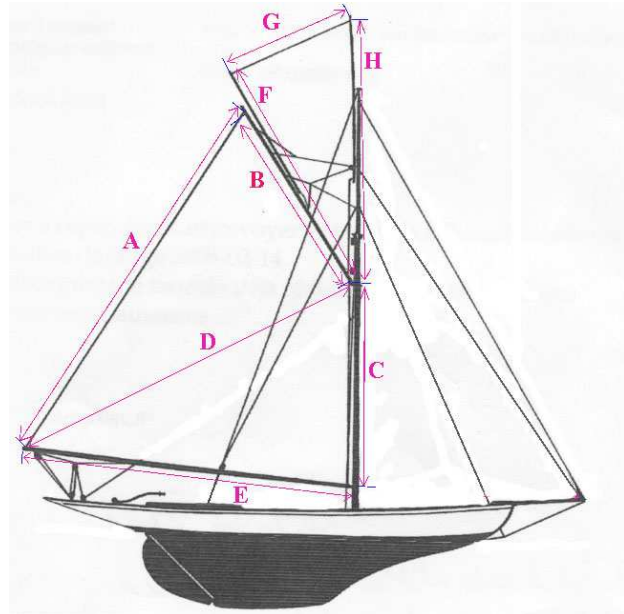
However the Displacement Factor (FD) is calculated with a specific formula - see section 1

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Illustrations for measurement of sails

All measurements are taken on the sails except P and E.

P and E shall be measured on the spars and, in case no measurement marks are available, the maximum dimension taking into account the rig and fittings will be measured.



Mainsails as well as mizzen and foresails areas of Bermudan yachts are calculated with a standard leach round of 15%.

Is considered as a foresail a sail that has its luff hooked to a stay or which width at half height is less than 50% of its foot.

Bermudan sails area :

Main sail, mizzen sail and foresail : $0,575 * P * E$

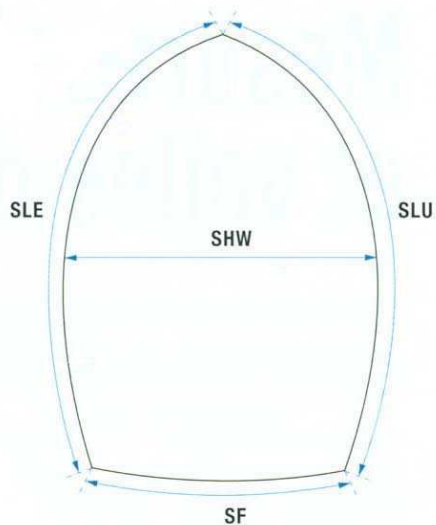
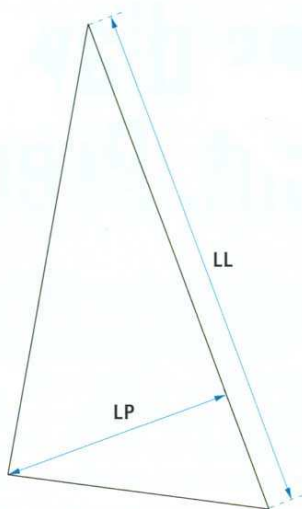
Gaff sails area :

Main sail, mizzen sail and foresail ... : $\sqrt{(V * (V - A) * (V - B) * (V - D))} + \sqrt{(W * (W - C) * (W - D) * (W - E))}$

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

Topsail :

$\sqrt{(Q * (Q - F) * (Q - G) * (Q - H))}$ where $Q = 0,5 * (F + G + H)$



Triangular reaching sails : $LL * LP / 2$

Downwind sails : symmetric or asymmetric spinnaker, Cruising shute, Fisherman, Mizzen Staysail ... :
 $0,83 * (SLE + SLU) / 2 * (SF + 4 * SHW) / 5$

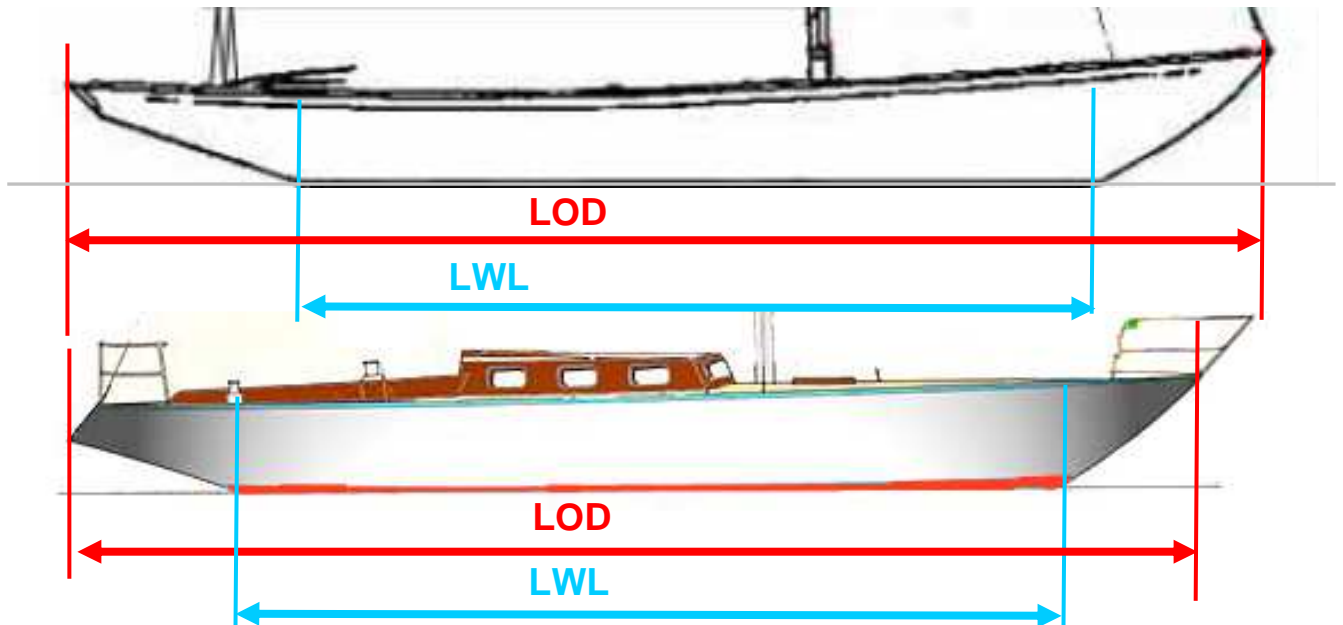
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Illustrations relative to the measurement of the hull and to the keel types

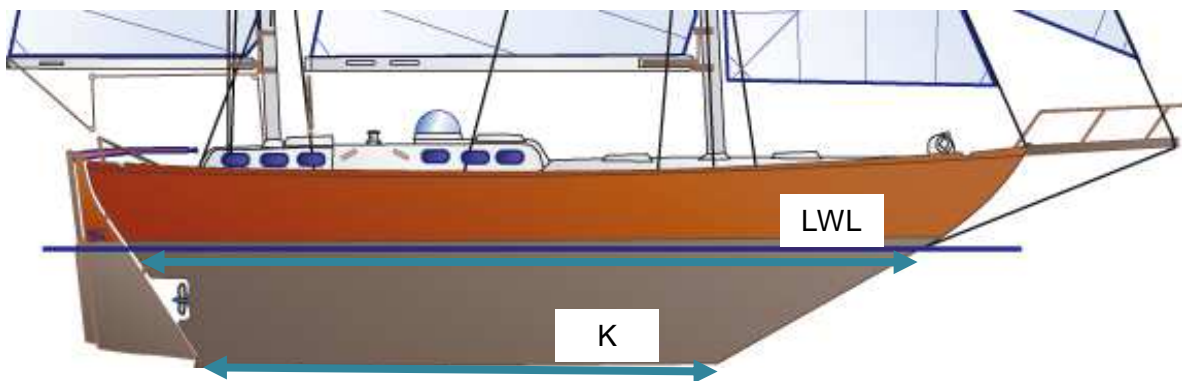
LOD, Length over deck in metres : it is the maximal length of the hull, excluding pulpits, measured between two perpendiculars.

LWL, Length of waterline

Depending on the transom, measurements are illustrated below.



Long keel : is considered as a long keel when, as in the below example, the ratio K/LWL is higher than 60%. The owner must bring the proof -picture or plan - than confirms his demand.



Example of rudder separated from the keel (here with a classic keel, ie with garboard strake)

