

# 15m<sup>2</sup> SNS – 4mR

# 2016

## National 15m<sup>2</sup> – 4mR class

### Rating rules

Approved by the Class Association and Swiss Sailing (xx.xx20169)

[www.15m2-sns-class.ch](http://www.15m2-sns-class.ch)

## Authority: 15m<sup>2</sup> – 4mR Class Association

YACHT DE 15 M<sup>2</sup> S.N.S.

N-56

PLAN N°2 ECH. 1:10

Plan valable pour 1 seul bateau

Ne peut être communiqué, reproduit,  
ou utilisé sans autorisation. H. G.

Quille et varangues en bois dur  
Membres acacia 17.20  
Bordé acajou 12  
Rivets cu.  $\phi$  2.5 sur bagues alternat. 2 et 3 par bord et par membr.  
entre (8) et (9).  
Serres bauguères 12 cm<sup>2</sup> sur  $\frac{1}{4}$  de long. totale  
Barrots sapin 18.42 tous les 2.50  
Pont contreplaqué léger 12

La construction doit être conforme aux règles d'échantillonnage  
de la série des 15 m<sup>2</sup> S.N.S.

Genève, décembre 1955  
H. Coppoex, inf.

- March 1st. 1995
- January 1979 with changes in 1980, 1986 and 1990

# Rules content

Preamble advise from the Technical Committee (not part of the rules)

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**Preamble:**

**1. CHANGES TO RATING RULE**

At least one year's notice of any change to these rules shall be given.

## 2. Rating formula and limits

### 2.1 Formula

$$R = ((L + S^{0.5} - 0.5*B - F) / 2.07) + \text{Draught pen} \leq 4.020 \text{ m}$$

shall not exceed 4.020 metres (in fresh water)

Where: L = Length for rating (rule 3)

S = Measured sail area (rule 12)

B = Max Beam (rule 5)

F = Average Freeboard (Rule 4)

Draught pen = Draught penalty (Rule

2.2 The following limits shall apply:

- Length overall (LOA) shall not exceed **7.000m**
- Sail surface (S) shall not exceed **15m<sup>2</sup>**
- Max height of sail plan above deck shall not exceed **8.000m**
- Max height of forestay above deck shall not exceed **6.800m**
- Max draught shall not exceed **1.000m** (in fresh water)
- Max Freeboard (F) to be deducted in the Formula shall not exceed **0.540m**
- Minimum displacement shall not be less than **0.680 m<sup>3</sup>**

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2.3. All measurements shall be taken in metres to three places of decimals.

### 3. LENGTH

3.1 **L** in the formula is: the length measured at a height of **60mm** above the waterline (**LWL**) plus the bow girth difference, plus the stern girth difference.

3.2 The bow girth difference is taken at the forward end of the measured length **L'**, and is the bow girth to points **200mm** above **L** in a vertical plan, minus **400mm**. The bow girth difference calculated as mentioned above can not be less than **120mm**.

3.3 The stern girth difference is taken at the aft end of the measured length **L'**, and corresponds to one third of the difference between the stern girth from the top of the covering board (sheerline) on each side, minus twice the vertical height at the side of the yacht at this point.

3.4. The length overall (LOA) including end fittings shall not exceed **7'000 mm**.

#### 4. FREEBOARD

The average freeboard F correspond to one third of the sum of the three freeboards measured at the fore and aft girth stations, and **55%** of Lf from the bow.

In the formula the average freeboard F cannot exceed **0.540m**.

#### 5. BEAM

The beam B correspond to one quarter of the sum of the beam at deck level (measured between sheerlines), and three time the beam measured at LWL. These two dimensions shall be measured at 55% of Lf (midship girth station).

$$B = (B_{deck} + B_{wl} \times 3) / 4$$

#### 6. DRAUGHT

Maximum draught is 1.000m . If draught is exceeded the difference to 1.000m is multiplied by three and added to the rating.

#### 7. HOLLOW IN THE SURFACE OF THE HULL

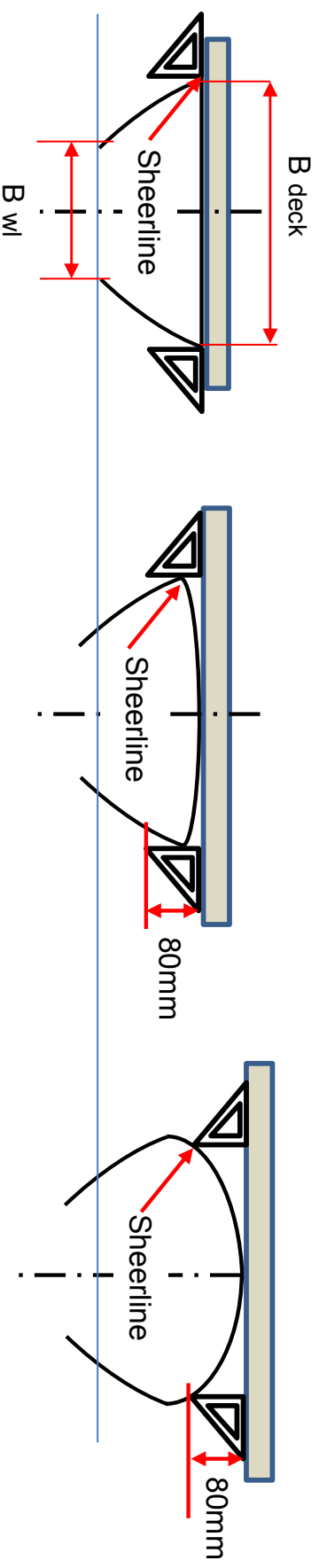
Hollows are not permitted in the surface of hull above the waterline. Bilge pump discharge openings and traveller sump drains shall not be considered hollows in the surface of the hull.

## 8. SHEER

8.1 The sheerline shall be a fair continuous concave curve.

8.2 The sheerline is defined as such:

- If the round of beam is less than 80mm it is where a plumb line hit the hull on the specific section.
- If the round of beam is more than 80mm it is where an 80mm square below an horizontal rule sitting on the top of the deck at the specific section, hit the hull

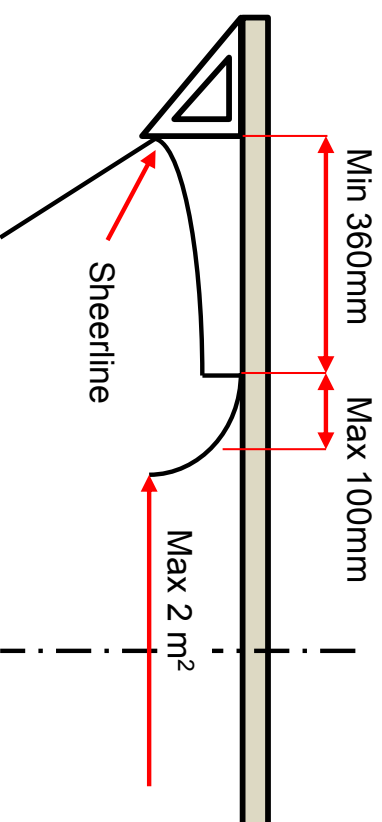


## 9. DECK OPENINGS

- 9.1 The total area of deck openings shall not exceed **2.000 m<sup>2</sup>**.
- 9.2 The breadth of side decks shall not be less than **360mm** measured from the sheerline to the deck and cockpit measurement line, at the back of the cockpit on a max length of **500mm**, the the breadth of side deck are not limited as long as the cockpit width doesn't exceed **1000mm**. The breadth of the side deck is measured from the sheerline to the outside part of the coaming. The width of the coaming cannot count for more than **100mm**. The open surface of the cockpit is measured between the inside of the coaming

- 9.3 The forward side of the cockpit cannot be forward of the mast.

- 9.4 A coaming is mandatory, its minimum height is 50mm forward of the cockpit and 20mm backward of the cockpit. On each side of the cockpit the coaming will increase, at least from the middle of the cockpit as a straight line to the front of the cockpit.





## 10. WEIGHT

10.1 The yacht shall be weighed before her first Certificate of Rating is granted. The weight shall be stated on the certificate. The weight and position of all inside ballast shall be noted.

10.2 The yacht shall be re-weighed before a new Certificate of Rating is issued.

10.3 When re-measurement is required owing to an alteration to the keel, or to the weight or fore and aft position of inside ballast, the yacht shall be re-weighed and re-sighted.

10.4 Minimum displacement cannot be less than **(0.15+0.16L<sup>f</sup>)<sup>3</sup>**, minimum displacement cannot be less than **0.680m<sup>3</sup>** (L<sup>f</sup> = waterline length in metre). The weight penalty is added to L

(see boat weight in measurement instructions)

$$\text{Weight penalty} = 2 * (L_f - (\min \text{ Displ}^{0,33-0,15}) / 0,16)$$

## 11. FIN KEEL AND RUDDER

- 11.1 Ballast shall be of lead or any other metal of density not greater than 11'340 kg/m<sup>3</sup>.
- 11.2 Total number of appendices shall not exceed two and their movement can be only rotation.
- 11.3 No appendage can be retracted while racing.
- 11.4 The fin-keel shall have a vertical or raked section not less than 100mm wide, from its upper level (junction with the hull) to the level 150 mm above the max draught with trim-tab in neutral position.
- 11.5 Fin keel chord measured horizontally, from its upper level (junction with the hull) to the level 150 mm above the max draught shall not be less than 800mm
- 11.6 The angle between the trailing edge of the fin-keel ( measured 150mm above max draught and finkeel hull junction, trim tab in neutral position) and the horizontal, cannot be less than 80°
- 11.7 The max radius of the of the joint between the fin-keel and the hull shall not exceed 15mm.
- 11.8 Maximum draught of either keel and/or rudder shall not exceed 1.000m (fresh water). If measured draught is more than maximum allowed, the difference to the max multiplied by three should be added to the rating
- 11.9 Winglets are allowed, their max span cannot exceed 600mm and their volumic mass should be less than 2t/m<sup>3</sup>. Winglets cannot be moved while racing.
- 11.10 No part of the rudder in neutral position shall extend aft of the aft end of L'.

## 12. HOLLOWS IN THE SURFACE OF THE HULL

No hollow shall be allowed in the surface of the hull between the L.W.L. and the sheer line, excepting in the profile of the stern forward of the point of measurement of L.

Hollows in the surface of the hull at the stern immediately resulting from the hollow permitted in the stern profile shall not be prohibited by this clause, provided any hollows so formed fall within the buttock line 180mm from the fore and aft centreline and below measurement point L1. Bilge pump discharge openings and traveller sump drains shall not be considered hollows in the surface of the hull.

La coque n'aura aucune ligne concave lors de la première jauge; exception est faite pour la ligne de livet et pour l'accastillage normal (*legitimate fitting*). Ne seront pas prises en compte les brisures dans les lignes de la coque qui sont visiblement faites pour influencer la jauge. Le jaugeur mesurera comme si les lignes étaient harmonieuses. Les appendices ne sont pas concernés par cette règle.

La coque sera une surface continue et sans sauts, creux ni bouchains. Elle doit être une "fair continuous surface" selon la définition de l'ISAF.

## **13. CONSTRUCTION, SCANTLING**

### **13.1 General**

14.1.1 The yachts from the 15m<sup>2</sup> SNS class shall from 1st January 19xx be constructed according to these rules, approved construction drawings and an approved '15m<sup>2</sup> SNS Building Form'. The approval shall be given by an appropriate international or national measurer appointed by the Class Association.

13.1.2 During the construction of the yacht a surveyor shall check that the scantlings and the weight distribution approved in the Building Form have been observed. The survey shall be done by the same measurer appointed by the Class Association.

13.1.3 Yachts from the 15 m<sup>2</sup> SNS class can be constructed on different way as long as the weight per square meter, overall price is respected. In case of doubt the Class Association technical commission and the National Authority can give a final decision.

### 13.2 Scantling

For hull, deck, reinforcements, keel, rudder mast and boom the following materials are

**allowed:**

- Woods of any species
- Steel with an elasticity modulus less or equal to 210Gpa (2100 N/mm<sup>2</sup>)
- Aluminium alloy
- Polyester, vinylester and epoxy resin
- Glass fiber E

**Forbidden:**

- Titanium
- Fiber with an elasticity modulus greater than 74Gpa (740 N/mm<sup>2</sup>) such as glass fiber S and R, carbon, aramid, etc...
- Honeycomb cores

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### 13.3 Scantlings

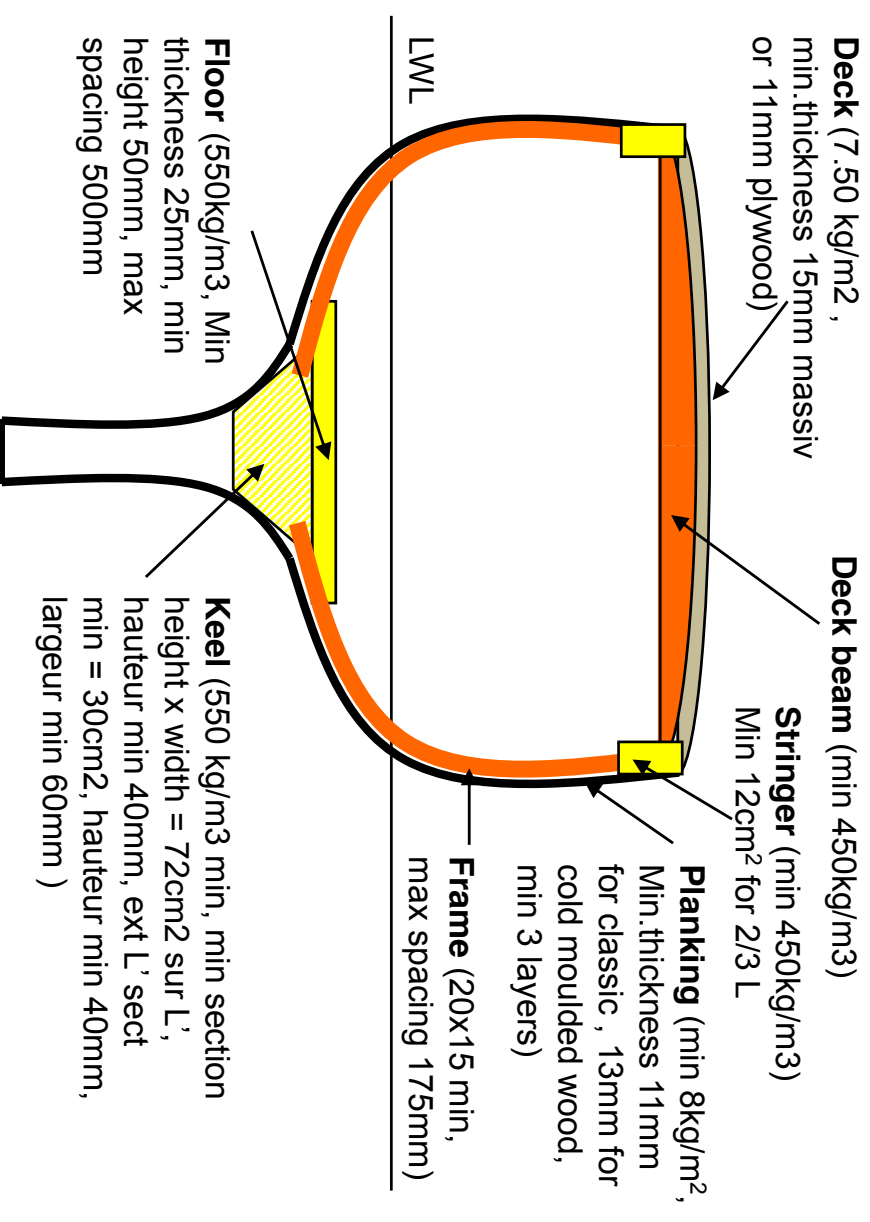
The following minimum weights of various parts of the yacht are required for a yacht to pass both plan approval and final weight check.

#### 13.3.1 Hull panel (Planking)

The weight of the hull panel shall be at least 8 kg/m<sup>2</sup> regardless of which material is used.

#### 13.3.2 Deck

The weight of the deck panel shall be at least 7.5kg/m<sup>2</sup>. excluding mast beams and cockpit beam shelves.



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### 13.4.1 Keel, Stem and Stern-post.

Keel shall have a minimum section of **72.0 cm<sup>2</sup>** (thickness x width) at midship, with a minimum thickness of **40mm**. Keel-rabbit shall be 22mm on the all length. Forward of L 1 the minimum section can be reduced to 30 cm<sup>2</sup> (thickness x width) , minimum thickness 40mm, minimum width 60mm. Minimum wood density 550 kg/m<sup>3</sup>.

Keel section at helm-port (hole for rudder stock deducted as: keel thickness x hole diameter) should have a minimum of **30.0cm<sup>2</sup>**. If keel is integrated to hull panel the mass of the of hull panel and keel together cannot be less than the minimum required by the rule.

### 13.4.2 Floors

Min density for wood floor : **550kg/m<sup>3</sup>**, min width **25mm**, max spacing **500mm**

Floor with a keel bolt : min width = 3.5 x bolt diameter , max spacing **400mm**.

For all floors min height above keel : **50mm**

The min length of the branch of the keel and mast floors should be **300mm** measured to the inside from the keel rabbet.

If floors are made with other material than wood, their minimum mass and span should be equal to the minimum specified for the wood.

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### 13.4.3 Keel bolts

Keel bolts should be in stainless or galvanized steel. Minimum resistance should be 360 N/mm<sup>2</sup>. Minimum section of all keelbolts should be :  $S = 220 \times P/b$  where P = weight of the keel (ballast) in ton, b= thickness of the top of the keel (ballast) in metre, S = net section of bolts in mm<sup>2</sup>. Number of bolts cannot be less than 3.

### 13.4.5 Stringer (Beam shelve)

Minimum section on two third of the length : **12.0 cm<sup>2</sup>**. Minimum density **450 kg/m<sup>3</sup>**.

If the stringer is integrated to the planking the combined minimum weight (Planking plus stringer) should be the sum of the minimum weight for the stringer plus the min weight for the planking.



Table 1: Construction scantling

Components	Wood	Composit
<b>Hull panel</b>	8kg/m <sup>2</sup> (classic planking min= 11mm, cold moulded minimum 3 layers , minimum thickness= 13mm)	8kg/m <sup>2</sup>
<b>Deck (excluding beams and cockpit surrounding)</b>	7.5kg/m <sup>2</sup> Minimum thickness = 15mm for classic panel, or 11mm for plywood	
<b>Frames</b>	Minimum section :20x15, Maximum spacing between centerlines 175mm	
<b>Keel bolts</b>	3600 kg/cm <sup>2</sup> , P= Keel weight in ton, b=fin-keel thicknes at upper part. Minimum bolt's section =2.2xP/b [cm <sup>2</sup> ], Minimum nb .of bolts = 3	
<b>Beam shelve, stringer</b>	Min 12cm <sup>2</sup> for 2/3 of L, Minimum density 450 kg/m <sup>3</sup> (If the stringer is integrated to the deck, density should not be less than combined densities)	
<b>Mast and cockpit beams</b>	Minimum section 50x30, minimum density 450 kg/m <sup>3</sup> , Max spacing 250mm (If the beam is integrated to the deck, density should not be less than minimum combined densities)	
<b>Keel, Stem and Stern-post</b>	Minimum mid-ship section: thickness x width = 72cm <sup>2</sup> min, min.thickness= 40mm Forward and backward of L' mi section (width x thickness) = 30cm <sup>2</sup> min, min thickness = 40mm, min width= 60mm, min density= 550kg/m <sup>3</sup> Min section at stern post = 30cm <sup>2</sup> (excluding stock hole dimension: épaisseur x diam of stern post.	
<b>Floor</b>	Minimum density= 550kg/m <sup>3</sup> , Minimum thickness= 25mm, max spacing= 500mm, Minimum height above keel= 50mm Min thickness for keel floor= 3.5x bolt diameter. Maximum spacing=400mm <b>Branche des varangues de lest et de mât min = 300mm de la rablure à l'extrémité.</b> <b>Si d'autres matériau sont utilisés les poids doivent être respectés.</b>	

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#### 14. SAIL and SAIL PLAN

14.1 The measured sail area S is the sum of 70% the areas of the mainsail and 100% of the Fore-triangle:

$$S = 0.7 * (P * E) / 2 + (I * J) / 2$$

**P** is the length of the mainsail luff

**E** is the length of the foot of the mainsail

**I** is the height of the forestay

**J** is base of the foretriangle

The sail area S cannot exceed 15.000m<sup>2</sup>, except for the yachts build or in construction before January 1<sup>st</sup>. 1944. These boat are allowed to carry the sail area that the formula for that time has defined.

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14.2 The class insignia is “15” , national letters and sail numbers shall be placed on the Mainsail. On spinnaker only sail number is mandatory.

Letters and number shall be of the following minimum dimensions:

Height 400mm

Width 260mm (except number 1 and letter I)

Thickness 50mm

Minimum space between letters and/or numbers 80mm

14.3 The height of sail plan shall not exceed **8.000m**. It shall be measured from deck level to the underside of upper measurement band.

14.3 The «deck level» is taken at **80mm** above sheerline or at actual deck level if the round of the deck is less than **80 mm**.

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### 15. FORETRIANGLE and HEADSAIL

15.1 The height of the foretriangle “I” shall not exceed 6.800m above the level of the covering board (sheer).

15.2 The maximum height of the foretriangle “I” on the mast and the forward ending of the foretriangle on the deck shall be defined as the points where the extension of the inboard side of the forestay cuts the mast and cuts the deck; or the distance between the points where the extension of the outboard side of headfoil cuts the mast and cuts the deck . A forestay shall be fitted

15.3 The base of the fore triangle is measured along the deck and is the greatest of:

- The distance from the forward face of the mast in its most backward position and the back face of the forestay at deck level, or the front face of the headfoil if used.
- The measured distance from the front face of the mast and the end of the spinnaker pool (bearing point).

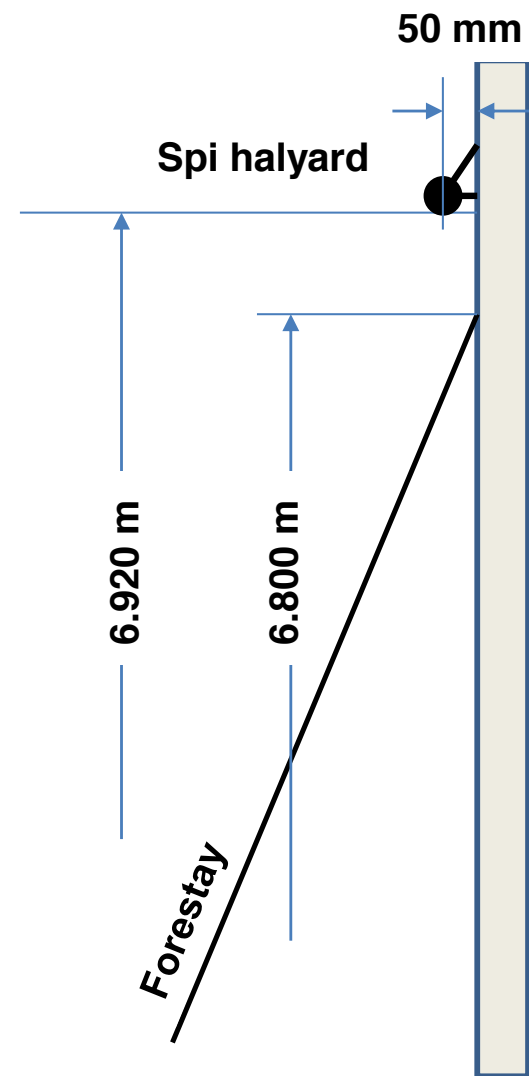
15.4 The foot of the greatest jib shall not exceed  $J + 1.800$  m. Yacht build before Jan 1<sup>st</sup>. 1979 can keep the foot length which was allowed by the old measurement rule only if they still use a  $\frac{3}{4}$  rig.

## 16. SPINNAKER

16.1 A spinnaker shall be symmetrical about its vertical centre line and shall not embody any device capable of altering its shape. The luff and leech shall be of equal length. The maximum lengths of luff or leech shall not exceed **6.800m**.

16.2 When a spinnaker is folded tack to clew and luff to leech the width at the point halfway down the periphery of the fold to a point halfway down the leech shall not be less than 75 per cent of the length from the clew to the end of the centre line at the foot.

16.3 The spinnaker can be suspended at a maximum height from deck level of **6.920m** and at a maximum distance from the forward side of the mast of **50mm**.



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### 17. MAIN SAIL

17.1 The area of the mainsail shall be taken as the length of the luff “P” multiplied by the length of the foot “E” divided by two.

17.2 The length of the luff shall be the distance from the top of the measurement band, below which the top of boom cannot be lowered, to the bottom of the measurement band above which the top of the headboard cannot be hoisted. Stops are to be fitted at these positions. However, when a halyard lock is used the upper stop may be omitted, provided the top of the headboard cannot be above the bottom of the measurement band while racing. The maximum luff length is 7.550m .

17.3 The height of the boom above the deck level cannot be less than **450mm**

17.4 The length of the foot shall be the distance from the inner edge of the measurement band at the boom end along the top of boom to the aft side of the mast **excluding the track or jackstay; but if there is a groove in the mast for the sail, to the foreside of the groove or 13mm, whichever is the lesser.**

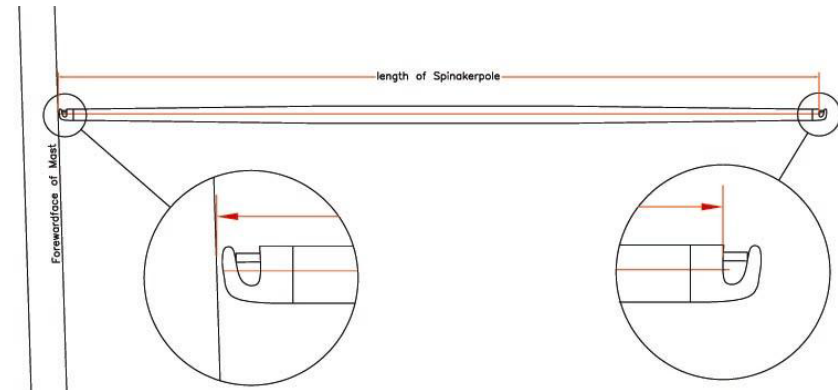
17.5 The head of the mainsail measured perpendicular to luff, including the bolt rope cannot be more than **150mm**.

17.6 There is a maximum of four battens in the mainsail which divide the leech in five equal parts  $\pm$  **50mm**. The top batten length cannot exceed **E x 0.4** (E is the mainsail foot). The two mid battens cannot exceed **1.000m**, and the bottom one **1.200m**.

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### 18. SPINNAKER POLE

The length of the pole from the centreline on the forward side of the mast to the bearing point in the eye at the outer end of the pole shall not exceed the length of the base of the fore triangle. For the measurement purpose, the pole is held horizontal and in compression.



### 19. MAST

19.1 The mast section shall have a minimum forward and aft measurement of **100 mm** excluding external tracks and minimum athwartships measurement of **70mm**. Minimum wall thickness **2mm**. These diameters can be reduced by **20%** at top I measurement (forestay attachment on mast), and **50%** at mast head.

**19.2 The ratio between fore-and-aft and athwartships measurements of the mast section shall nowhere be greater than 1.6 to 1. (this proposal aimed at limiting the possibility of having wing mast.)**

19.3 Only materials allowed are wood and aluminium.

### 20. BOOM

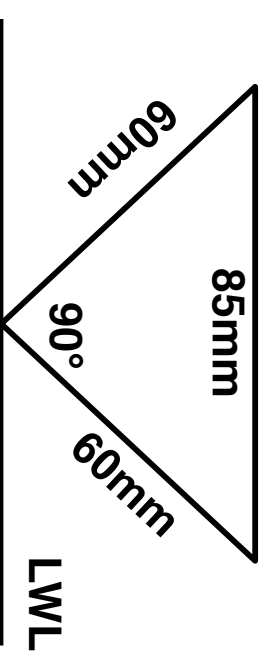
20.1 The boom shall nowhere have a diameter greater than **85mm** including track.

20.2 Only materials allowed are wood and aluminium.

## 21. MEASUREMENT AND SIGHTING

21.1 Visible marks on the hull are to be placed at all points of measurement in accordance with the following definitions and diagrams. The measurement points should be identified with a screw (6mm diameter) and a triangle of 60mm x 60mm x 85mm, a dot 10mm diameter, or a rectangle 100mm long by 10mm wide, they should always remain visible.

21.2 The floatation triangle are placed at 55% of LWL from bow end. It is a triangle of 60mm x 60mm x 85mm



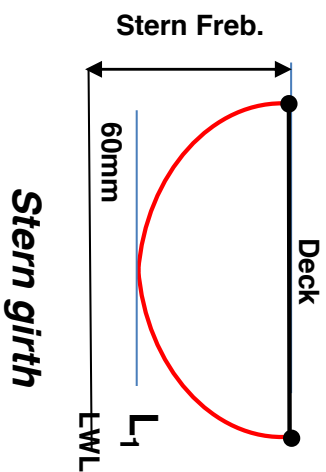
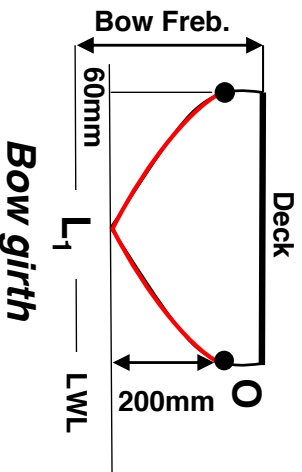
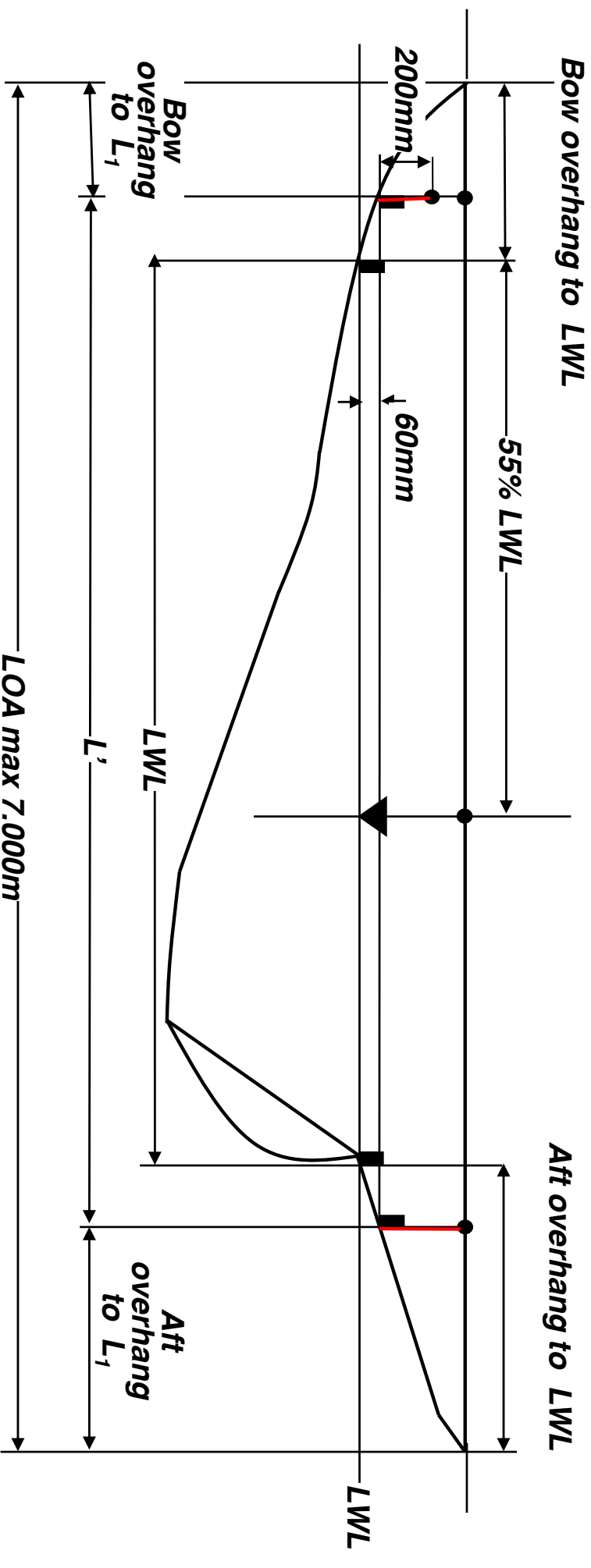
21.3 The 4 end marks for the floatation and L are rectangle of **10 x 80 mm** at minimum. They are placed transversally on the keel line in order to be visible on each side of the hull. The outside of the mark is at the measurement point.

21.4 The 8 marks for freeboards and girth are identified with a screw (The center of the screw is on the measurement point).



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# 21 - Measurement and singting



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**22. (Spare)**

## 23. CERTIFICATE OF RATING

23.1 As soon as a yacht has been measured and a **Construction** Certificate has been issued, the measurer **or owner** shall send the Measurement Form to the National Authority which shall issue/ **validate** the Certificate of Rating to be effective from the date of completion of measurement.

If from any peculiarity in the construction of the yacht, or other cause, the measurer is of the opinion that the rule will not rate the yacht fairly, or that in any respect she does not comply with the requirements of these rules, he shall report the circumstances to the National Authority who after due enquiry shall award such Certificate of Rating as they may consider equitable and the measurement shall be deemed incomplete until this has been done.

23.2 If an error is identified in a measurement certificate for whichever reason, the National Authority can modify or cancel this measurement certificate.

23.3 National Authorities shall use a common format of Measurement Form and Certificate of Rating similar to that issued with these rules (see Annex 1).

## **24. OBLIGATIONS OF OWNER RESPECTING CERTIFICATE**

The Certificate of Rating shall cease to be valid under any of the following circumstances:

- If alteration is made which, in any way, reduces the scantlings. A new Certificate of Rating shall be issued only if the international measurer certifies that the alteration, if incorporated when the yacht was built, would not have caused her original Classification Certificate to have been withheld.
- If amount or position of the inside ballast is altered from that shown on the Certificate of Rating.
- If any dimension measured for rating, except freeboard, is found to exceed the measurement stated on the Certificate of Rating.
- If any alteration is made so as to alter the beam or girth or girth difference, or the length of any spar or spars, as respectively measured for rating, or if the sail plan is altered.
- If one or both outer edges of the waterline length marks where they intersect the profile fall below the water level when the yacht is lying in smooth water in measurement trim.
- If any length or girth or immersion mark is moved from its position.
- If there is an change of ownership of the yacht.

## **25. INSPECTION TO BE PERMITTED BY OWNER**

Every owner sailing under these rules shall permit all reasonable inspection by or on behalf of the national authority, and shall afford all reasonable facility to carry out such inspection in regard to measurements, marks, fittings, and such other matters as fall within the scope of a measurer's duty.

## **26. WEIGHT AND STOWAGE OF EQUIPMENT TO BE CARRIED**

26.1 The boat when weighed dry, fully rigged with sheets and halyards, without the equipment as listed in 24.2, without sails and crew.

26.2 Equipment to carry onboard while racing:

- One anchor (min 6kg) and chain, if attached, minimum weight 8kg.
- Warp, minimum diameter 10mm, length 25m
- One bilge pump or a bucket , one pair of paddles.
- One legal life jacket per person on board.

## **27. PROHIBITIONS**

The use of any apparatus or contrivance outboard or extending outboard and attached to the spars or rigging the purpose of which is or may be to support or assist in supporting a member of the crew outboard or partially outboard is prohibited.

## **28. NUMBER OF PERSONS ON BOARD**

The number of persons on board shall not exceed three.

During a championship the number of person on board cannot change.

**29. ELECTRONICS AND ELECTRICALS *(proposal)***

Electronics system are permitted but they shall not be used to provide information from third parties nor to correlate true wind speed and direction or true boat speed (VMG).

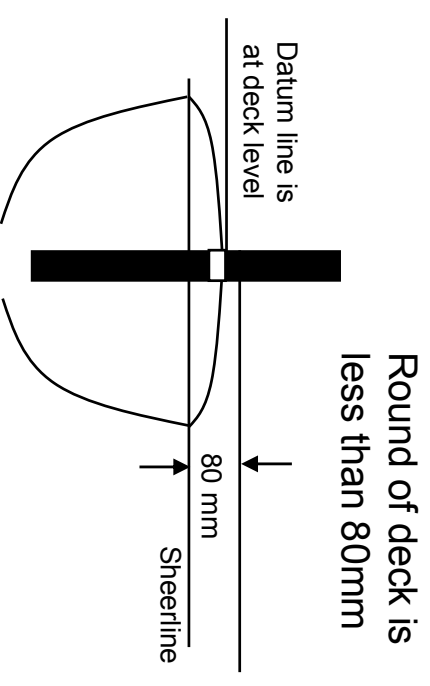
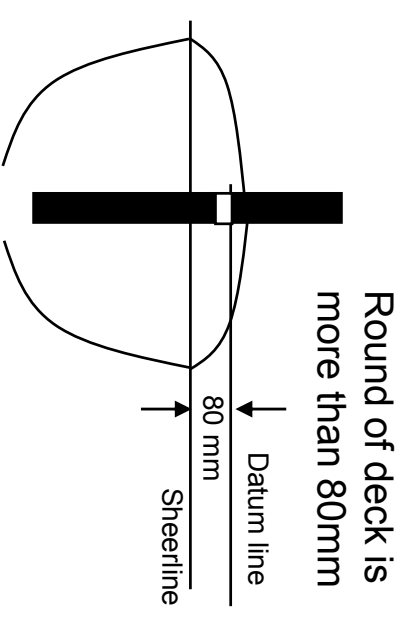
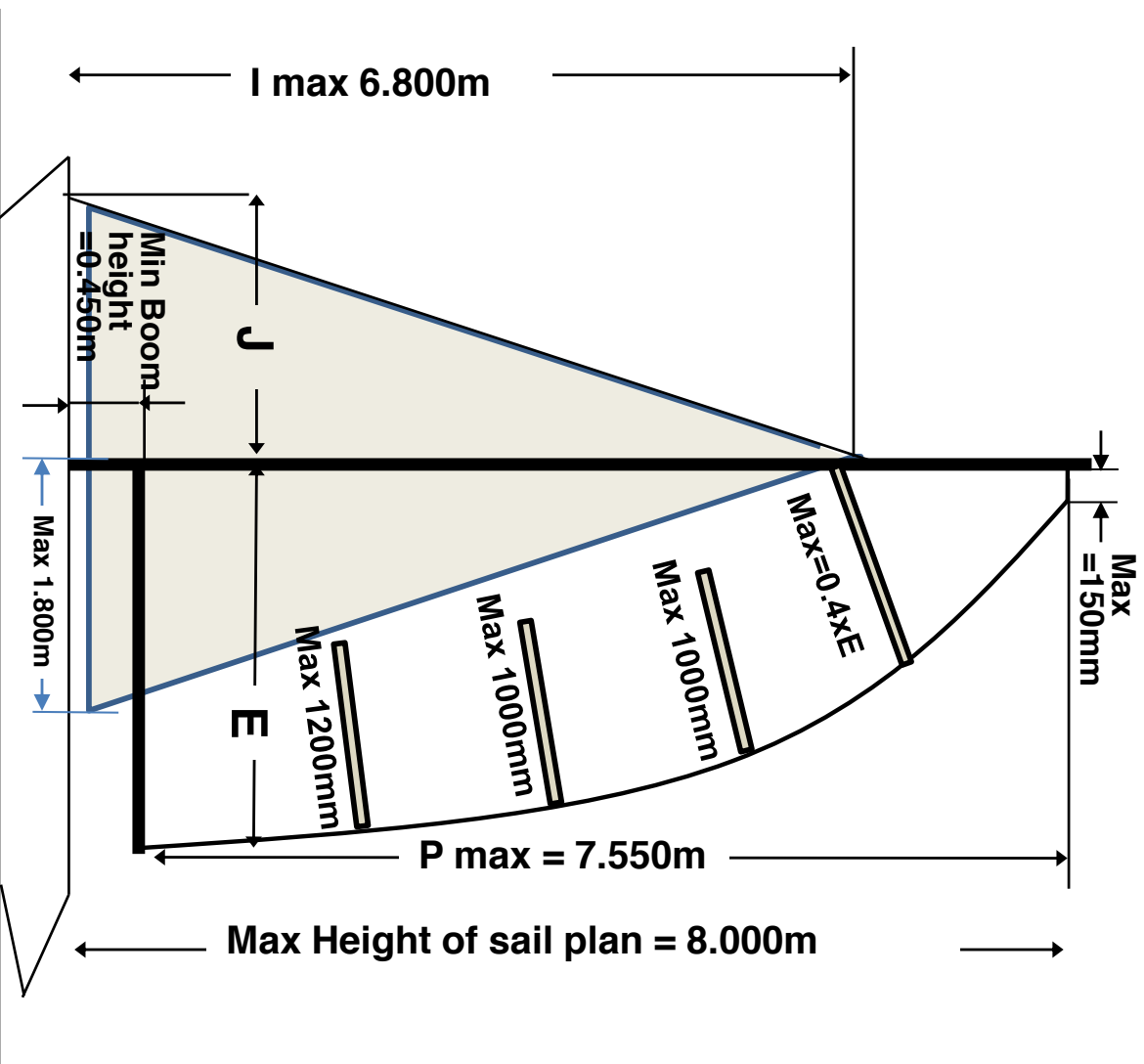
**30. DEFINITION OF BOAT : CLASSIC, EVOLUTION AND MODERN**

30.1 The fleet shall be divided by age of boat into three classes named Classic, Evolution and Modern, as follows : *(to be defined!)*

- Classic till 19xx with attached rudder to the keel
- Evolution
- Modern not build or designed after 19xx

**31. ADVERTISING :**

The Class adopts Category C restricted as follows: no advertising on the mainsail and jib.



**CERTIFICAT DE JAUGE****EN EAU DOUCE**

Établi d'après les règlements de  
l'Union Internationale du Yachting de Course"

délivré par

L'UNION SUISSE DU YACHTING

AUTORITE NATIONALE

Pour Yacht de 15m<sup>2</sup> S.N.S.

0

Nom du yacht **VV**  
 Propriétaire **CCC**  
 Adresse **XXX**  
 Club **YC**  
 Nom de l'architecte **XX**  
 Nom du constructeur **XX**  
 Lieu de construction **XX**  
 Année de construction **2000**  
 Jaugé par **XX** le **27 Mai 00**

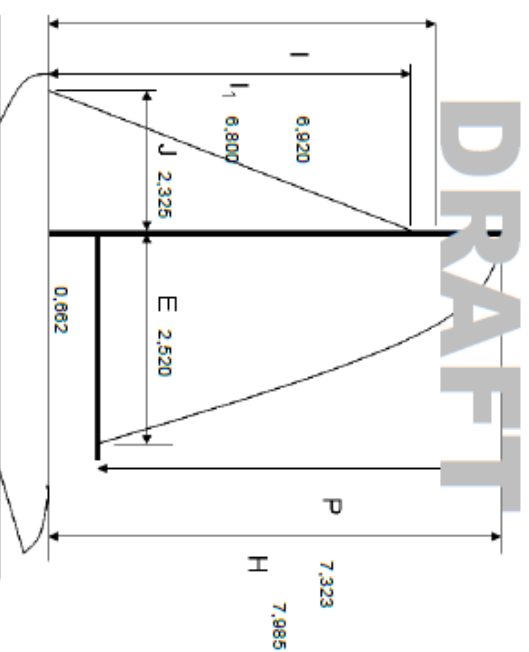
No de course

Le jaugeur

**SUI-XXX**

**VOILURE****Conditions générales**

	Maximum	Effective
Art. 11 Hauteur H au dessus du pont	8,000	7,985
Hauteur l de la drisse de spi	6,920	6,920
Hauteur l1 du triangle avant	6,920	6,800
Art. 12 Longueur des ralingues de spinnaker	6,800	6,800
Longueur entre les marques P	7,550	7,323
Base du plus grand foc (J+1.80)	---	4,125
Longueur du plus grand tangon (J)	---	2,320

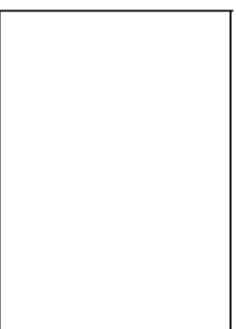


Grand' voile	$\frac{P \times E \times 0.7}{2}$	$\frac{7.323 \times 2.520 \times 0.7}{2}$	6,459
Triangle avant	$\frac{J \times l_1 \times 1.0}{2}$	$\frac{2.325 \times 6.800 \times 1.0}{2}$	7,905
Surface totale pour la jauge (art.2) max 15.0 [m <sup>2</sup> ]			14,364
SQRT			3,790

Obs.

0

**SNS**  
**15**





**CONDITIONS DIVERSES****Restrictions - Corrections**

Longueur totale	6,915
Elanement avant à la flottaison	0,878
Elanement arrière à la flottaison	1,130
Total des élanements	2,008
Longueur à la flottaison effective L <sub>f</sub> e	4,907

Inventaire du matériel de course et des pièces mobiles à bord:

1 ancre 12 Kg, 1 aussière 25m diam. 10mm	ok
1 pompe ou l'écope, 2 avirons	ok
1 engin de sauvetage par personne à bord	ok

Lest intérieur de <input type="text"/>	placé à <input type="text"/>
Art. 3	
Poids effectif, P <sub>e</sub>	0,820
Déplacement minimum autorisé Dt	0,818
Différence en plus	
Correction à ajouter	0,000

Art 4	
Tirant d'eau effectif	0,995
Tirant d'eau maximum	1,000
Différence en plus	
Correction à ajouter	0,000

Art 5	
Franc bord moyen effectif	0,540
Franc bord maximum	0,540

B			
Largeur du pont	à 0,55 L <sub>f</sub>	bo	1,751
Largeur à la flottaison		b1	1,287

$$B = \frac{bo + 3b1}{4} = 1,403$$

**DETERMINATION DU CHIFFRE DE JAUGE**

$$J = \frac{L + SORT(S)}{2,07} - F \cdot 0,5B$$

**MESURES**

Longueur totale	6,915
Elanement avant en L'	0,623
Elanement arrière en L'	0,911
Retrancher la somme des élanements	1,534
Longueur mesurée non corrigée	5,381
Chaîne à l'avant en L'	0,528
2 fois la hauteur verticale à l'avant	0,400
O' à l'avant	0,128
Ajouter 1 et 1/2 de O' à l'avant	0,192
Ajouter 1/3 de O' à l'arrière	1,470
Longueur corrigée L	0,870
Correction pour insuffisance de déplacement	0,600
SORT (S)	0,200
L + SORT(S)	5,773
0.5 B	0,000
Franc bord moyen à l'avant O	3,790
Franc bord moyen au milieu G	9,563
Franc bord moyen à l'arrière O	0,702
Somme des francs bords	0,642
Retrancher 1/3 de la somme des francs bords	0,530
0.5 B + F	0,495
Reste pour le total des mesures	1,667
Diviser par 2,07	0,540
Correction pour excès de tirant d'eau	1,242
Correction pour excès de rentrée des hauts	8,321
<b>Chiffre de jauge</b>	4,020
	0,000
	<b>4,020</b>

15mSNS

SUI-xxx

27 Mai 00

## Table 2 : Glossary (Boat)

English	French	German	Spanish	Italian
Beam	Barrot, bau	Breite	Bao	Baglio
Beam shelve or Stringer or clamp	Serre bauguière	Unter-Balkweger	Contra-durmiente	Serreta
Bolt	Boulon	Bolzen	Perno	Perno o Bollone
Bulwark	Pavois	Schanzkleid	Amurada	Murata
Chain-plate	Cadène	Rüstseisen	Cadena de vïgote	Controlanda
Coaming	Hilloire	Suell	Brazola	Battente di boccaporto, Mastra
Cockpit	Cockpit	Cockpit	Banera	Pozzetto
Counter, lower stern	Voute	Gillung	Bovedilla	Volta di poppa
Covering board	Plat bord	Schandeck	Regala	Suole
Deck	Pont	Deck	Cubierta	Coperta, ponte
Displacement	Déplacement	Bewegung	Desplazamiento	Dislocamento
Draught, draft	Tirant deau	Tiefgang	Calado	Pescaggio, immersione
Finn Keel	Alïeron de quille	Kieflfosse	Ala de la quilla	Ala della chiglia
Floor, Frame floor	V arangues	Bodenwrange	Varenga	Madïere
Frame	Couple	Spant	Cuaderna	Costa, Ordinata
Freeboard	Franc-bord	Freibord	Franco Bordo	Bordo libero
Girth	Chainne	Abwicklung	Contorno	Perimetro di contorno
Helm-port	Jauunière	Hennegat, Ruderkiker	Limera del timon	Losca, Timoniera
Keel	Quille	Kiel	Quilla	Chiglia
Knee	Courbes	Knie	Cunva	Bracciuolo
Planking, Plank	Bordé	Beplankung	Tablazon	Fasciame
Rabbet	Råblure	Spündung, Sponung	Alefritz	Battura
Rudder	Gouvernail	Ruder	Timon	Timone
Scantling	Echantillonage	Bauvorschriften	Escantillon	Dimensioni dellï parti strutturali
Sheer	Tonture	Strak	Arrufo	Insellatura
Sheerline, deck line	Livet	Deckstrack	Linea de cubierta	Linea del ponte
Shelv	Bauguière	Balkweger	Durmiente	Dormiente
Sighting				
Stem	Etrave	Vorderstevan, Vorstevan, Bug	Roda, Branque	Dritto o Ruota di Prua
Stem	Arrière	Achtern	Popa	Poppa
Stem post	Etambot	Hinterstevan	Codaste	Dritto di poppa
Transom	Tableau arrière	Spiegel	Espejo di poppa	Specchio di poppa
Winglet	Aillette			

## Table 2 : Glossary (Sail & Rig)

English	French	German	Spanish	Italian
Battens	Lattes, Balestron	Latten	Sable	Stecca
Boom	Bôme	Baum	Botavara	Boma
Clew	Point d'écoute	Horn	Puno	Bugna
Forestay	Etai	Vorstag	Estay de proa	Strallo di proa
Genua	Génois	Genua	Genova	Fiocco Genova
Groove	Gorge	Keep	Ranura	Scanalatura, gola
Halyard	Disse	Fall	Dirza	Dirzza
Head-board	Têtère	Kopfbrett	Tablilla	Tavoletta
Jackstay				
Jib	Foc	Fock	Foque	Fiocco
Leech	Chute	Achterliek	Baluma	Caduta
Luff	Guindant	Vorliek	Pujamen	Inferitura
Luff-ropes	Ralingue de guindant	Vorliektau	Ralinga de pujamen	Ralinga di inferitura
Mainsail	Grand-voile	Gross-segel	Mayor	Randa
Sheet	Ecoule	Schot	Escota	Scotta
Shroud	Hauban	Want	Obenque	Sartia
Spinnaker pole	Tangon	Spinnakerbaum	Tangon	Tangone
Spreader	Barre de fleche	Saling	Cruceta	Crocetta
Tack	Point d'ammure	Wende	Amura	Punto di mura, Mura