



**INTERNATIONAL FORMULA 18 CLASS
MEASUREMENT FORM
MEASUREMENT CERTIFICATE
I F18CA-2019 (version PCB2019/06)**



IDENTIFICATION

Boat Certificate n° National letters & Sail N° : WS N° :
Hulls N° / N° coques : Hulls N° / N° coques :
Brand of boat : Date manufactured :

OWNER

owner / propriétaire :
Address / adresse :

Zip code / CP : City / ville :
Country / Pays : E-mail :

MEASURES & DESCRIPTION OF THE PLATFORM

C.6.1.(b) (1) Weight boat ready to sail : 180 kg minimum
C.6.2.(a) Corrector weight 7 kg maximum
D.6.2.(a) Hull length / Longueur coque 5,52 m maximum
D.6.2.(b) Boat beam / Largeur plateforme 2,60 m maximum
C.7.1.(b) Inspection hatches / trappes Minimum 1 per hull
D.3.1.(a) Material
D.5.1.(a) Trampoline material Netting is not permitted
B.1.1.(c) have valid certification mark is required : Port side hull starboard side

DAGGERBOARDS & RUDDERS

	Port side	starboard side	
C.8.2.(a)(1) Daggerboards serial n° :	<input type="text"/>	<input type="text"/>	
E.3.4.(a) Daggerboards weight	<input type="text" value="4,000 kg"/>	<input type="text" value="4,120 kg"/>	5,5 kg maximum
E.3.3.(c) Daggerboards extension below the hull	<input type="text"/>	<input type="text"/>	1,40m maximum
B1.1.(c) Daggerboard certification mark F18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
C.8.2. Rudders serial n° :	<input type="text"/>	<input type="text"/>	
E.4.6.(a). Rudders weight	<input type="text" value="3,800 kg"/>	<input type="text" value="3,660 kg"/>	Minimum 3 kg
B1.1.(c) Rudder certification mark F18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

RESERVED NATIONAL CLASS ASSOCIATION

Initial boat certification Certification control carried by Date
Boat re-certification n° For main sail : jib Spinnaker Platform Other

Certification Authority

Complementary comments of the measurer

Ancien Propriétaire Rafael Martin-Prat

EQUIPEMENTS

Boat Certificate n°	A-ESP 51	National letters & Sail N° :	ESP 51	WS N° :	793
Owner :	F18 VOILE AQUITAINE	Brand of boat :	NACRA		

C.5 PORTABLE EQUIPMENT

C.5.1(a)1 One righting line	4	Minimum 4m. long
	10	Minimum Ø 10mm
C.5.1(a)2 One magnetic steering compass	1	Minimum One

C.9 RIG

C.9.2(a) Mast datum point shall not be more than 120mm above the top of the front bear	OK
C.9.7(a) Running rigging shall be led outside the mast spar	OK

D.4 BEAMS

D.4.2(a) The beams shall be extruded aluminium profiles of constant section	OK
D.4.2(b) The curvature of the beams shall be limited a maximum of 15mm	15

F.3 MAST

F.3.2(a) The mast shall be extruded aluminium profiles of constant section	OK		
F.3.3 Dimensions	Mast spar circumference	0,375 m	0,385 m Maximum
	Distance between upper point and front beam	9,050 m	9,100 m Maximum
	Shroud height	6,750 m	6,750 m Maximum
	Spinnaker hoist height	8,130 m	8,150 m Maximum
	Top of the front beam to mast datum point	110	
	Extrusion total length	9,135 m	
B.1.1(c) Have valid certification marks as required	<input type="checkbox"/>		

F.4 BOOM

F.4.1(a) The Boom, if fitted,	Yes or no	<input checked="" type="checkbox"/>
F.4.1(a) shall be made and extruded aluminium profiles of constant section		OK

F.5 BOWSPRIT

F.5.1(a) The bowsprit shall be on the longitudinal centreline of the boat	OK		
F.5.1(b) The bowsprit shall be attached to the front beam	Ok		
F.5.2(a) The bowsprit shall be made of aluminium of constant section	OK		
F.5.5(a) The length of the bowsprit shall not exceeded the distance from the centre of the front beam to a vertical line touching the most forward part of the hull plus 800 mm, with the bowsprit measured when vertical.	800		
F.6.2(b) (2) The bowsprit bridles may be of rope of minimum diameter 2,5mm	2,5		
Dimensions : Diameter Ø	40,000 m/m	Length	3,950 m
C.9.5(c) The bowsprit shall have an end cap that is smooth, rounded	OK		

F.6 STANDING RIGGING

F.6.1(a) The standing rigging of the stainless steel	<input checked="" type="checkbox"/>
F.6.2(a)(1) A forestay and bridles mini 4mm	<input checked="" type="checkbox"/>
F.6.2(a)(1) Shrouds mini 4mm	<input checked="" type="checkbox"/>
F.6.2(a)(3) Trapeze wires mini 2,5mm	<input checked="" type="checkbox"/>

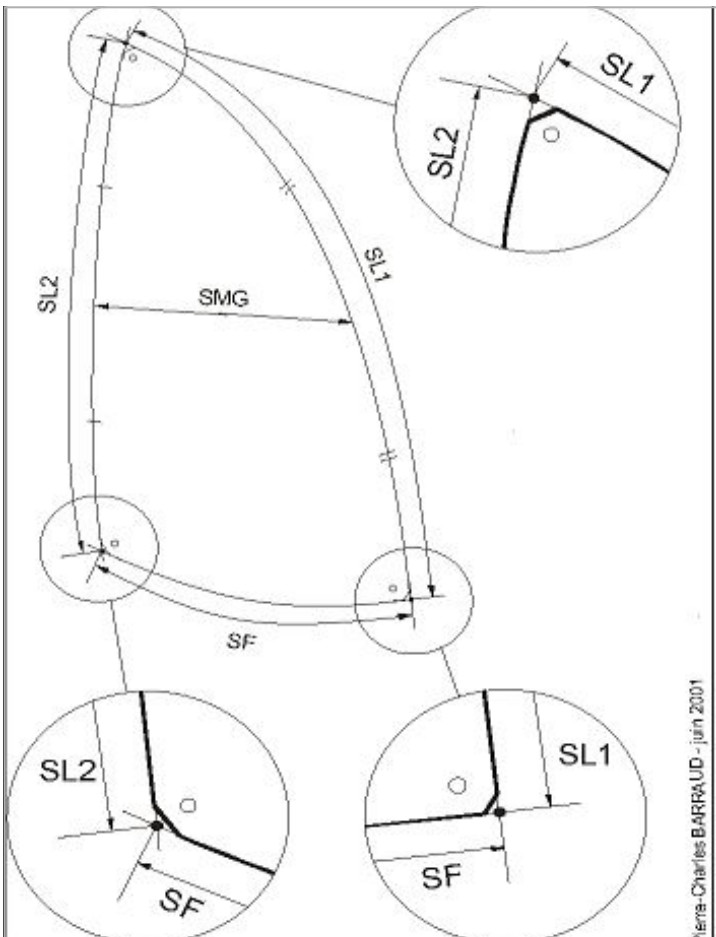
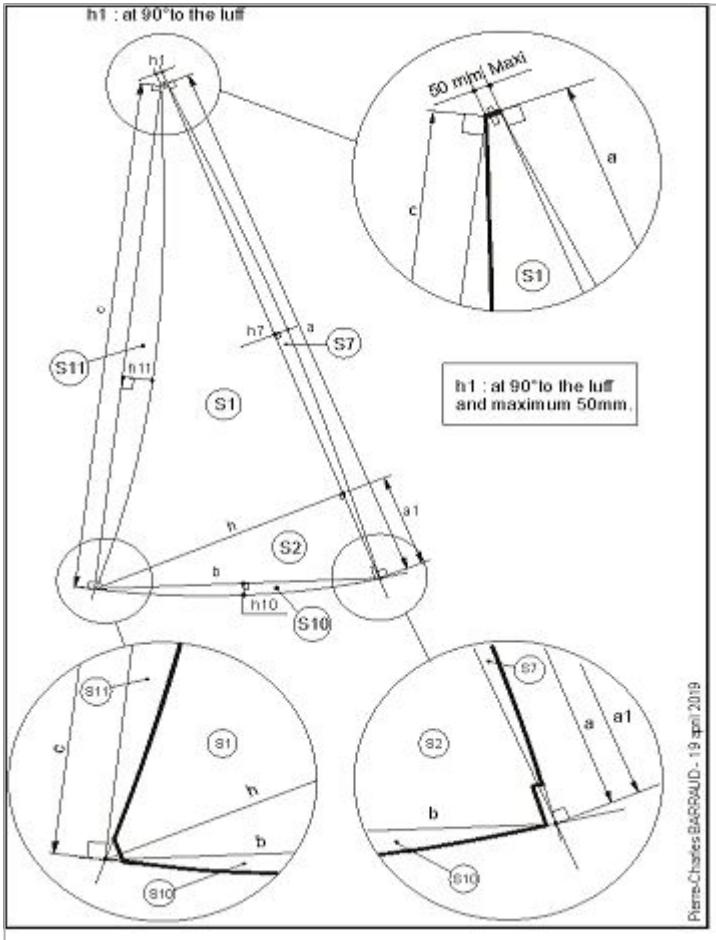
F.7 RUNNING RIGGING

F.7.2(a)(1)(2) Mainsail halyard & sheet	<input checked="" type="checkbox"/>
F.7.2(a)(3)(4) Jib halyard & sheet	<input checked="" type="checkbox"/>
F.7.2(a)(5)(6) Spi. halyard & sheets	<input checked="" type="checkbox"/>
F.7.2(a)(7) Spi. Retraction lines	<input checked="" type="checkbox"/>

Complementary comments of the measurer

MEASURES AND CALCULATIONS AREA OF JIB & SPINNAKER

Boat Certificate n°	A-ESP 51	National letters & Sail N° :	ESP 51	WS N° :	793
Owner :	F18 VOILE AQUITAINE	Brand of boat :	NACRA		



G.4 JIB

Small Jib 3,60 m2	<input type="checkbox"/>	Large Jib 4,30 m2	<input checked="" type="checkbox"/>
Sailmaker / Voilier :	Performance Sails		
Serial n° / N° série :	8519		
Colour / Couleur :	Blanco		
Batten number :	3 3.4.2(d)(2) maximum 3		
Material / Matériau :	apen 06 3 mil		

h1		$S1 = ((h+h1) \times (a-a1)) / 2$	4,3158
a	6,015	$S2 = (h \times a1) / 2$	0,0000
h7	0,040	$S7 = ((a \times h7) / 3) \times 2$	0,1604
c	5,730	$S10 = 2 / 3 \times b \times h10$	0,0239
h11	-0,100	$S11 = 2 / 3 \times c \times h11$	-0,3820
h	1,435	JIB AREA Small Jib 3,60m2 Large Jib 4,30m2	
a1			
b	1,435		
h10	0,025		
			4,118

G.4.2 Construction & G.4.3 Dimensions

The Leech shall not be convex	<input type="checkbox"/> OK	<i>Max</i>
Top width	<input type="checkbox"/> 40	50mm
Batten width	<input type="checkbox"/> 40	40mm
Batten pocket outside width	<input type="checkbox"/> 4	80mm
Window area : minimum : 0,30 m2	<input type="checkbox"/> 0,31	
Dacron sticker F18 Small Jib 3,60m2	<input checked="" type="checkbox"/>	
Dacron sticker F18 Large Jib 4,30 m2	<input type="checkbox"/>	

G.5 SPINNAKER

Small Spinnaker 19,00m2 maximum	<input type="checkbox"/>
Large Spinnaker 21,00m2 maximum	<input checked="" type="checkbox"/>
Sailmaker / Voilier :	Performance Sails
Serial n° / N° série :	Y021S
Colour / Couleur :	AZUL
G.5.1 Material / Matériau :	SUPERCOTE 65

SL1	8,800	% SMG / SF	78,71
SL2	7,725	Spinnaker AREA 20,794	
SMG	2,865		
SF	3,640		
Dacron sticker F18 spinnaker 19,00 m2			
Dacron sticker F18 spinnaker 21,00 m2		<input checked="" type="checkbox"/>	

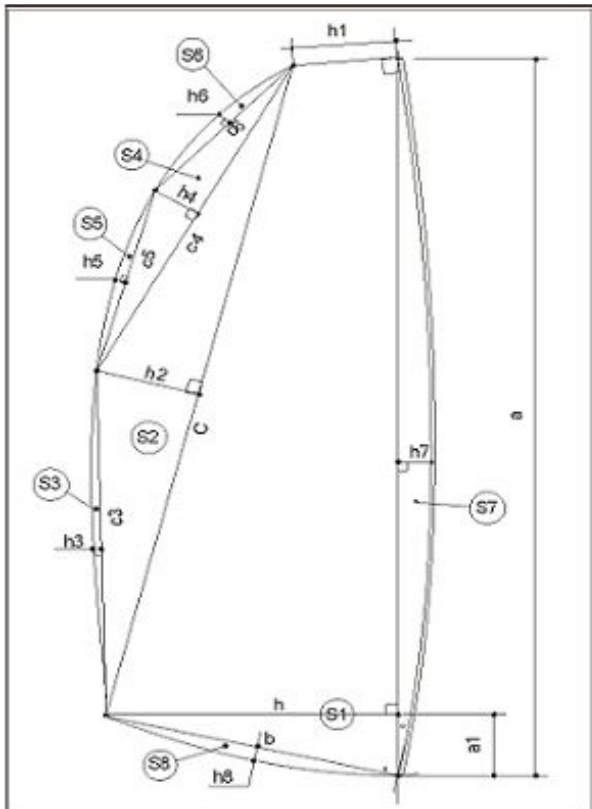
RESERVED NATIONAL CLASS ASSOCIATION

Certification control carried by	Date
Carlos Ladron de Guevara	17/06/2018

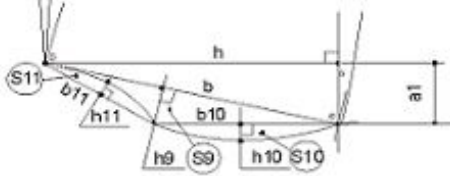
Certification Authority

MEASURES AND CALCULATIONS THE MAINSAIL CLASSIC OR DS

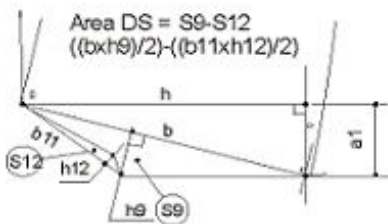
Boat Certificate n° **A-ESP 51** National letters & Sail N°: **ESP 51** WS N°: **793**
 Owner : **F18 VOILE AQUITAINE** Brand of boat : **NACRA**



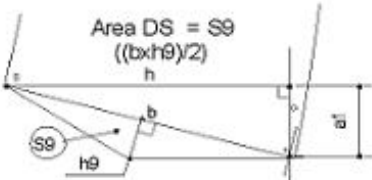
Area DS = S9+/-S10+/-S11
 $((b \times h_9)/2) + / - ((b_{10} \times h_{10})/2) + / - ((b_{11} \times h_{11})/2)$



Area DS = S9-S12
 $((b \times h_9)/2) - ((b_{11} \times h_{12})/2)$



Area DS = S9
 $((b \times h_9)/2)$



Certification control carried by **Carlos Ladron de Guevara** Date **17/06/2018**

Certification Authority

MAST AREA

Length extrusion **9,135** Perimeter **0,375**

G.3 MAIN SAIL : 17 m maximum

Sailmaker / Voilier :	Performance Sails
Serial n° / N° série :	8523
Colour / Couleur :	blanco
Batten number :	3
G.3.2 Material / Matériau :	Apend 60

a	8,492	S1 : $((h+h_1)(a-a_1)+(a_1 \times h))/2$	13,2736
h7	0,045	S2 : $(c \times h_2)/2$	0,9627
c	8,090	S3 : $2/3 \ c \times h_3$	0,0867
h2	0,238	S4 : $(c_4 \times h_4)/2$	0,2424
c4	4,040	S5 : $2/3 \ c_5 \times h_5$	0,0718
h4	0,120	S6 : $2/3 \ c_6 \times h_6$	0,0900
c6	2,250	S7 : $2/3 \ a \times h_7$	0,2548
h6	0,060	S8 : $2/3 \ b \times h_8$	0,0073
c5	1,795	S9 : $(b \times h_9)/2$	
h5	0,060	S10 : $((b_{10} \times h_{10})/3)^2$	
c3	4,065	S11 : $((b_{11} \times h_{11})/3)^2$	
h3	0,032	S12 : $-(b_{11} \times h_{12})/2$	
h	2,190	Main Sail AREA	14,989
b	2,202		
h8	0,005	Mast area / Surf. Du mât :	1,713
a1	0,380	Total AREA	16,702
h1	0,980		

h1 and h being parallel and perpendicular to the main luff, the main area is a trapezium and a right-angled triangle.
 h2 and h4 are perpendicular to the middle point between c and c4.
 h3, h5, h6, h7 and h8 are respectively the cambers of the cords c3, c5, c6, a and b.
 h10, h11 can be positive, negative or equal to zero.

G.3.5 DIMENSIONS

Top width excluding boltrope	980	Max 1,00 m
Upper wight at upper leech point 1500mm from the head point	1290	1,29 m
The angle between the luff ans the head	87	90°
Tabling width	11	115mm
Window area : minimum : 0,30 m2	0,9	

B.2 CERTIFICATION MARKS F18

Dacron sticker F18 main sail 17,00 m2
 Class emblem F18