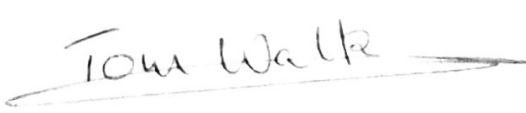





Royal Yachting Association

INTERNATIONAL 2.4 METRE CLASS CERTIFICATE OR RATING

RYA House, Ensign Way, Hamble,
Hampshire, SO31 4YA
United Kingdom
Tel: 02380 604100
Fax: 02380 60 4299
<http://www.rya.org.uk>

SAIL NUMBER	<u>GBR 157</u>
ISAF PLAQUE NUMBER	<u>917</u>
DESIGNER	<u>NORLIN</u>
DESIGN	<u>MK III</u>
BUILDER	<u>CHARGER TECHNOLOGY</u>
YEAR BUILT	<u>2016</u>
MEASURED BY	<u>KEITH GORDON RYA</u>
DATE MEASUREMENT COMPLETED	<u>1ST NOVEMBER 2016</u>
DATE OF THIS CERTIFICATE	<u>31st MAY 2017</u>
ISSUED BY	<u>THE ROYAL YACHTING ASSOCIATION</u>
	 
	TECHNICAL
RATING	<u>2.398</u>

MEASUREMENTS

Overall length
 Add Overhand Forward to L1
 Overhang Aft to L1
 Total Overhang
 Measured Length (Overall length - Total Overhang)
 Girth at Bow
 Twice Vertical Height at Bow
 O at Bow
 Add 1 1/2 O to Bow
 Subtract Girth at Stern
 Twice vertical Height at Stern
 O at Stern
 Add 1/3 O at Stern
 Add any penalty at O2
 Correct length, L
 Skin girth d to d1 Port
 - Chain girth d to d1 Port
 = Girth difference Port
 Skin girth d to d1 Starboard
 - Chain girth d to d1 Starboard
 = Girth difference Starboard
 Add Girth difference Port and Starboard
 2 x sum of Girth difference
 Add to find sum of L + 2d
 Add Mean freeboard Bow O
 Mean freeboard Midships
 Mean freeboard Stern O
 Sum of freeboards
 Subtract 1/3 sum Freeboard, F (max 0.292)
 =L+2d-F
 Displacement Penalty
 Corr LWL Difference 2 x difference
 Beam Penalty Beam
 Min beam Deficiency 4 x deficiency
 √ S
 Total of Measurements L+2d-F+S
 Divide by 2.37 = RATING =
 Draft Penalty Draft
 Max draft Excess 3 x excess
 Tumble home Penalty Tumble home
 Max Tumble home Excess 3 x Excess

FINAL RATING

	4.18	
0.43		
0.66		
	1.090	
	3.090	
0.311		
0.240		
0.072		
	0.108	
0.898		
0.529		
0.369		
	0.123	
	0.000	
	0.231	3.321
0.730		
0.730		
0.000	0.000	
0.730		
0.730		
0.000	0.000	
0.000		
		0
		3.321
0.327	0.327	
0.295	0.295	
0.298	0.298	
0.92		
0.307		0.292
		3.029
0.000		
0.000	0.000	0.000
0.769		
0.720	0.000	0.000
		2.654
		5.683
		2.398
0.000		
0.000	0.000	0.000
0.000		
0.000	0.000	0.000
		2.398

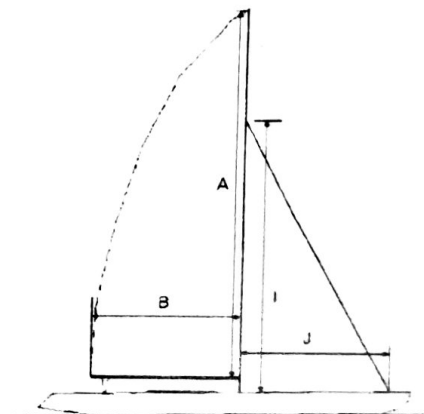
OTHER MEASUREMENTS RECORDED BY MEASURER

Overall Length
 Overhang Forward to L
 Overhang Aft to L
 Total Overhang (sum overhang forward & aft)
 Waterline Length (Overall length - Total overhang)
 Beam at 1/3 Height of Midship Freeboard
 Tumblehome
 Minimum measured freeboard when ballasted and swamped
 Weight recorded by weighing in measurer's presence
 (including 35Kg ballast)
 Minimum weight required $(0.2 \times \text{LWL} + 0.06)^3$

	4.18
0.545	
0.66	
	1.205
	2.975
	0.005
	289
	288

Sail Dimensions

P= 4.650 I= 3.750
 E= 1.960 J= 1.560



Areas of Sails

Mainsail (m ²)		4.557
Foretriangle Total (m ²) =	2.925	
Foretriangle Total x 0.85 (m ²) =		2.486
Sail Area for Rating (m ²) = S =		7.043
√ S		2.654

[2.4 GBR 153] NOTE: This Certificate is issued by the RYA. No details shall be altered without the prior permission of the RYA.