


INTERNATIONAL 2.4 METRE CLASS

Rating Certificate

National Letters and Sail Number	SWE 446
ISAF Plaque no.	655
Designer	Peter Norlin
Builder	Charger Composite
Building Year	2009
Owner	Arne K. Larssen
Owners adress	Box 253 439 26 Onsala

Supersedes former certificate, dated		Swedish Sailing Federation
This certificate is dated	2009-05-20	
Validity confirmed by	<i>Kjell Martinsson</i>	
Measurer: Per Lindell	2009-05-16	Stamp of Authority
Complementary measurement:		

Overall Length		4.180	
Add (Overhang Forward to L ₁)		0.432	
Add (Overhang Aft to L ₁)		0.656	
Subtract Total Overhang		1.088	1.088
Measured Length			3.092
Girth at Bow		0.317	
Subtract (Twice Vertical Height at Bow)		0.240	
0 at Bow		0.077	
Add 1,5*0 at Bow, (min 0.108)			0.116
Girth at Stern		0.895	
Subtract (Twice Vertical Height at Stern)		0.530	
0 at Stern		0.365	
Add 1/3 0 at Stern, minimum 0.080			0.122
Add any penalty at 0 ₂			
Correct length, L			3.329
Subtract (Skin d to d ₁ Port)		0.000	
Subtract (Chain d to d ₁ Port)		0.000	
d Port		0.000	
Subtract (Skin d to d ₁ Starboard)		0.000	
Subtract (Chain d to d ₁ Starboard)		0.000	
d Starboard		0.000	
Add d			0.000
2d			0.000
Add to find sum of measurements			3.329
Add (Mean Freeboard Bow 0)		0.326	
Add (Mean Freeboard Midship D)		0.306	
Add (Mean Freeboard Stern 0 and 0 ₂)		0.291	
Sum of Freeboards		0.923	
Subtract (1/3 sum) FREEBOARD, F, max	0.292		0.292
			3.037
Beam penalty			0.000
Tumblehome penalty			0.000
√S			2.652
Total of Measurements			5.689
Divide by 2.37 = RATING =			2.400
Displacement penalty			0.000
Draft penalty			0.000
Final Rating			2.400

National Letters and Sail Number	SWE 446
ISAF Plaque no.	655
This certificate is dated	2009-05-20
Overall Length	4.180
Add (Overhang Forward to L	0.544
(Overhang Aft to L	0.656
Subtract Total Overhang	<u>1.200</u>
Water Line Length	2.980
Beam at 1/3 Height of Midship Freebord	0.759
Maximum draft	0.975
Tumble Home	0.000
Weight by weighing	<u>260 kg</u>
with 35 kg ballast	<u>295 kg</u>
Minimum weight required by Rule	<u>289 kg</u>

Areas of Sails	I = 3.750
	J = 1.560
	P = 4.639
	E = 1.960
Mainsail =	4.546
Foretriangle Total =	2.925
Foretriangle Total x 0.85 =	<u>2.486</u>
Sail Area for Rating = S =	<u>7.032</u>
\sqrt{S}	2.652

If in doubt, the Certificate can be checked against the official website: www.ssf.se/tk/24/cert24.asp