

International 2.4 metre Measurement Form

Sail Number **GER 10**

ISAF Plaque Number **835**

Owner **Karl Dehler/RVG**

Name of yacht **"HAPPYEND"**

Overall length			4,181
Overhang Forward to L1		+ 0,429	
Overhang Aft to L1	Total overhang	+ 0,660	→ - 1,089
Measured length			3,092
Girth at Bow		3,12	
Twice Vertical Height at Bow	O at Bow	- 0,240 →	0,072
1½ O at Bow		+	
Girth at Stern		0,898	
Twice Vertical Height at Stern	O at Stern	- 0,529 →	0,369
Add 1/3 O at Stern		+ 0,123	
Add any penalty at O2	Sum of Girth difference	+ 0 →	+ 0,231
Correct length, L			3,323
Skin girth d to d1 Port			
Chain girth d to d1 Port	d Port	- →	+ 0
Skin girth d to d1 Starboard			
Chain girth d to d1 Starb,	d Starboard	- →	+ 0
d = d Port + d Starboard	2 x d		+ 0
Add to find sum of L + 2d			3,323
Mean freeboard Bow O		+ 0,327	
Mean freeboard Midships D		+ 0,292	
Mean freeboard Stern	Sum of freeboards	+ 0,298 →	0,917
F = 1/3 sum of freeboards	F, max 0.292		0,306
= L + 2d - F			- 0,292
Penalty Displacement Rule D.7.2.	LWL		3,031
Corr LWL	Difference	- →	+ 0
Penalty Beam Rule D.7.3	Beam		
Min beam	Deficiency	0,770	
√S	4 x deficiency	- 0,720 →	+ 0
Total of Measurements L + 2d - F + √S			+ 2,654
Divide by 2.37 = RATING =			5,685
Penalty Draft Rule D.7.1	Draft		2,4
Max draft	Excess		
Penalty Tumble home D.7.4	3 x excess	- 1,000 →	+ 0
Max Tumble home	Tumble home		
Excess	3 x excess	- 0,015 →	+ 0
FINAL RATING			2,4

Other Measurements recorded by measurer

Overall Length

Overhang Forward to L

Overhang Aft to L

Total Overhang (Sum overhang forward and aft)

Waterline Length (Overall Length - Total Overhang)

Minimum measured cockpit frame over water level when ballasted and swamped in accordance with rule C.5.2

Boat weight recorded by weighing according to rule C.5.1

Boat weight including 35 kg ballast

Minimum weight by Rule D.7.2 $(0.2 \times \text{LWL} + 0.06)^3 \times 1.025$

	4,181
+ 0,547	
+ 0,660	
→ - 1,207	
	2,974
	0,050
	254 Kg
	289 Kg
	289 Kg

Sail Dimensions

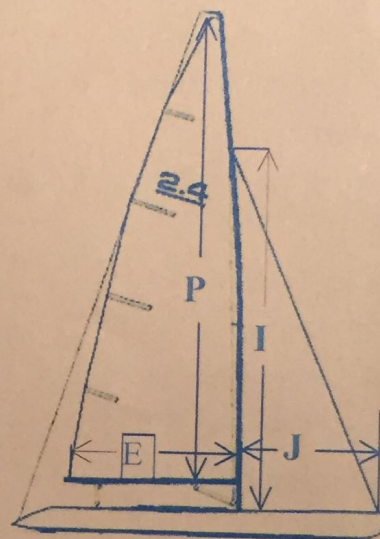
P = 4,650

Outer point distance E = 1,960

Forestay height I = 3,750

Foretriangle base J = 1,560

Mast measurements checked	OK
Height of mast datum point Rule C.8.2 (b) (2)	OK
Boom measurements checked	OK
Rudder thickness, Rule E.4.3	OK



Areas of Sail

Mainsail $0.5 \times P \times E =$

Foretriangle Total $0.5 \times I \times J =$

Foretriangle Total $\times 0.85$

Sail Area For Rating = S =

\sqrt{S}

	4,552 m ²
2,925 m ²	
	2,486 m ²
	7,045 m ²
	2,654

Builder *Changer Composites* Designer *Peter Norlin*

When Built *2013*

Measured by *Esko Kyyrö*
Esko Kyyrö FIA 0019

Date of Measurement *24.9.2013*

Complementary measured by..... Date of compl measurement.....

Certificate issued by..... Date of issue.....

name

CA

authority

signature