

12



INTERNATIONAL TWELVE METRE CLASS

Yacht's Name WINGS

National letters and Sail Number K 15 Club Nyländska Jagtklubben / KDY

Designer Camper and Nicholson UK

Builder Camper and Nicholson UK Building Year 1937

Owner Johannes Gullichsen, Thomas Ahlström, Kim Weckström

Owner's Address WINGS, Maltevangen 14
2820 Gentofte, Copenhagen

Lloyds R class certificate (Number or Date) _____

RATING CERTIFICATE

This yacht has been measured by measurer(s) appointed by the International Twelve Metre Association and has been found to rate not more than 12.000 metres.

This certificate is dated: 16-Aug-21

Measurer Kay-Enno Brink Signature 

Valid until 16-Aug-23

Supersedes 12-Jun-19

Is this an **Appendix E** Certificate? Y / N Y

Was **Appendix F** used for Measurement? Y / N N

Signature 
ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association


Yacht's name : WINGS

Date

16-Aug-21

RATING CALCULATION


OVERALL LENGTH				21.449
Overhang Forward to FGS		2.767		
Overhang Aft to AGS		3.332		
Total Overhang (Subtract)		6.099		
MEASURED LENGTH (L_{BG})				15.350
Girth at Bow		1.642		
Twice vertical Height at Bow (Subtract)		1.200		
Girth Difference at FGS		0.442		
Add 1.5 Grith Difference at FGS (min 0.540 m)		0.663		
Girth at Stern		3.124		
Twice vertical Height at Stern (Subtract)		1.790		
Girth Difference at AGS		1.334		
Add 1/3 Girth Difference at AGS (min 0.400 m)		0.445		
Add any penalty (Beam or Displacement)		0.032		
Sum of Length and Girth Corrections				16.489
Age/Date Correction Factor (ADCF)(see page 3)	0.9589			
LENGTH (L)				15.812
Skin IM to d1 Port		2.118		
Chain IM to d1 Port		2.105		
d Port		0.013		
Skin IM to d1 Starboard		2.120		
Chain IM to d1 Starboard		2.106		
d Starboard		0.014		
Add d		0.027		
Add GIRTH 2 d				0.054
	Datum Sta.	Actual Sta.	Rating FB	
Mean Freeboard Bow		1.409	1.409	
Mean Freeboard Midship		1.108	1.108	
Mean Freeboard Stern		1.075	1.075	
Sum of Freeboards			3.592	
Subtract FREEBOARD, F			See Notes	1.197
Add SAIL AREAS (Square root)				13.772
TOTAL OF MEASUREMENTS				28.441
PENALTY (Draft or Tumblehome)			0.000	
RATING				12.000

Date and Place of Measurement	12-Jun-19	Glücksburg	Helsinki	16-Aug-21
Measurer's Name(s)	Kay-Enno Brink		Signature	

Yacht's name : WINGS		Date	12-Jun-19
Range Measurement (Yes or No)	N	Date:	12-Jun-19

PENALTIES

Overhang Forward to MWL		3.272	
Overhang Aft to MWL		4.011	
Subtract from overall length		7.283	
Difference of immersion from salt to fresh water	Meas. Density		
WATERLINE LENGTH (LWL)			14.166
Minimum Displacement for Zero Penalty [m3]		26.549	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)		27.213	
WEIGHT [tonne]	Actual weight		27.126
	Equivalent LWL (for Displ. < min.)	14.150	
	Difference	-0.016	
DISPLACEMENT PENALTY (add to L)			0.032
Displacement Determination Method		3D-Scan	
DRAFT (actual)		2.741	
	Max. Draft for Zero Penalty	2.767	
	Difference (if positive)		
DRAFT PENALTY (add to Rating)			0.000
BEAM (Min)		3.600	
	Max Beam at 1/3 of Midship Freeboard	3.601	
	Difference (if positive)		
BEAM PENALTY (add to L)			0.000
	Tumblehome Max. (2 x 2% of Extr. Beam)	0.144	
	Extreme Beam	3.608	
	Beam at deck	3.494	
	Difference (if positive)	0.114	
TUMBLEHOME PENALTY (add to Rating)			0.000

Date and Place of Measurement	12-Jun-19 Glücksburg Helsinki	16-Sep-21	
Measurer's Name(s)	Kay-Enno Brink	Signature	

Design/Age Correction Factor Calculation			
Age Date	1937		
ADCF (Table E-2)	0.9589		
Hull Alteration Scope and Date			
Appendage Change Scope and Date			
Change/Alteration Correction ADCF			
Accommodation Deficiency Ballast	none		

Yacht's name : WINGS

Date

12-Jun-19

SAIL PLAN

Max Height of Sail Plan =	<input type="text" value="24.900"/>	J=	<input type="text" value="7.700"/>	I =	<input type="text" value="18.742"/>
Boom above Mast Datum =	<input type="text" value="1.387"/>	P=	<input type="text" value="23.513"/>	E=	<input type="text" value="10.910"/>
Rated Mainsail Area	<input type="text" value="128.263"/>	Spi boom=	<input type="text" value="7.710"/>	√S=	<input type="text" value="13.772"/>
J used for Rating	<input type="text" value="7.710"/>				
Rated Foretriangle Area	<input type="text" value="61.413"/>	Propeller allowance		<input type="text" value="1.000"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="189.676"/>	Corrected sail area		<input type="text" value="189.676"/>	

SAIL LIMITS

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="7.419"/>	3/4 height (41% of E)	<input type="text" value="4.473"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="12.500"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="9.638"/>	max. luff length=	<input type="text" value="18.713"/>

Spar Measurement

MAST (material)	<input type="text" value="wood"/>	Mast Weight	<input type="text" value="544"/>	CG pos.	<input type="text" value="10.158"/>
Mast dimensions [mm]	Deck <input type="text" value="304*241"/>	Half-Height <input type="text" value="301*237"/>	Jib-Halyard <input type="text" value="253*205"/>	Head <input type="text" value="166*132"/>	
Sections area [cm ²]	<input type="text" value="575"/>	<input type="text" value="560"/>	<input type="text" value="407"/>	<input type="text" value="172"/>	
Mast CG Correction (if applicable) Wt & CG	<input type="text"/>		Mk ²	<input type="text"/>	

Engine/Propeller Installation

Engine and propeller weight	<input type="text" value="n/a"/>	Propeller diameter =	<input type="text"/>
Minimum boat speed with engine	<input type="text"/>	Propeller position =	<input type="text"/>
Propeller Type (folding feathering fixed pitch etc.), no of blades	<input type="text"/>		<input type="text"/>
Propeller Skew	<input type="text"/>		<input type="text"/>

Flotation

- 1 776 kg of internal lead ballast located in the bilge 9.1 m behind the stem.
- 2 The water tank was filled with 115 l water when the yacht was presented for measurement.

Measurer's Notes

- 1 Draft and displacement penalties are not ruled out as WINGS does not suffer from "natural age sinkage".
- 2 Rated freeboard is one third of the sum of the mean freeboards as per 1933 rule.
- 3 New wooden mast in 2018.
- 4 Accommodation was installed during winter 2018/2019.

Date and Place of Measurement

12-Jun-19 Glücksburg Helsinki

16-Aug-21

Measurer's Name(s)

Kay-Enno Brink

