

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: 12-Jun-19


Measurer Kay-Enno Brink Signature 


Valid until 12-Jun-21

Supersedes July 12, 2014

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

12-Jun-19

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 (LBG)**15.350**

Girth at Bow

1.642

Twice vertical Height at Bow (Subtract)

1.200

Girth Difference at FGS

0.442

Add 1.5 Girth 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**

Mean Freeboard Bow

Datum Sta.	Actual Sta.	Rating FB
	1.409	1.409
	1.108	1.108
	1.075	1.075
		3.592

Mean Freeboard Midship

Mean Freeboard Stern

Sum of Freeboards

See Notes

1.197**Subtract FREEBOARD, F****Add SAIL AREAS (Square root)****13.772****TOTAL OF MEASUREMENTS****28.440**

PENALTY (Draft or Tumblehome)

0.000

RATING**12.000**

Date and Place of Measurement

12-Jun-19 Glücksburg

Measurer's Name(s)

Kay-Enno Brink

Signature



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

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	
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="10.915"/>
Rated Mainsail Area	<input type="text" value="128.322"/>	Spi boom=	<input type="text" value="7.690"/>	\sqrt{S} =	<input type="text" value="13.772"/>
J used for Rating	<input type="text" value="7.700"/>				
Rated Foretriangle Area	<input type="text" value="61.333"/>	Propeller allowance		<input type="text" value="1.000"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="189.655"/>	Corrected sail area		<input type="text" value="189.655"/>	

SAIL LIMITS

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="7.422"/>	3/4 height (41% of E)	<input type="text" value="4.475"/>
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="9.625"/>	max. luff length=	<input type="text" value="18.710"/>

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

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

Measurer's Notes

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

Date and Place of Measurement

12-Jun-19 Glücksburg

Measurer's Name(s)

Kay-Enno Brink

