

# 12



## INTERNATIONAL TWELVE METRE CLASS

Yacht's Name SPHINX

National letters and Sail Number G 4 Club Flensburger Segel-Club

Designer Abeking & Rasmussen

Builder Abeking & Rasmussen Building Year 1939

Owner Eignergemeinschaft "SPHINX"


Owner's Address Schöne Aussicht 10, 24944 Flensburg

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: 11-Jun-22


Measurer Kay-Enno Brink Signature 


Valid until 10-Jun-24

Supersedes 5-Jul-10

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 : SPHINX

Date

11-Jun-22

**RATING CALCULATION****OVERALL LENGTH****21.480**

Overhang Forward to FGS

2.975

Overhang Aft to AGS

3.225

Total Overhang (Subtract)

6.200

**MEASURED LENGTH (L<sub>BG</sub>)****15.280**

Girth at Bow

1.597

Twice vertical Height at Bow (Subtract)

1.200

Girth Difference at FGS

0.397

Add 1.5 Girth Difference at FGS (min 0.540 m)

**0.596**

Girth at Stern

3.275

Twice vertical Height at Stern (Subtract)

1.470

Girth Difference at AGS

1.805

Add 1/3 Girth Difference at AGS (min 0.400 m)

**0.602**

Add any penalty (Beam or Displacement)

**0.000**

Sum of Length and Girth Corrections

**16.477**

Age/Date Correction Factor (ADCF)(see page 3)

0.9600

**LENGTH (L)****15.818**

Skin IM to d1 Port

2.075

Chain IM to d1 Port

2.060

d Port

0.015

Skin IM to d1 Starboard

2.075

Chain IM to d1 Starboard

2.060

d Starboard

0.015

Add d

0.030

**Add GIRTH 2 d****0.060**

Mean Freeboard Bow

Datum Sta.	Actual Sta.	Rating FB
	1.427	1.427
	1.182	1.182
	0.915	0.915
		3.524

Mean Freeboard Midship

1.182

Mean Freeboard Stern

0.915

Sum of Freeboards

3.524

**Subtract FREEBOARD, F**

See Notes

**1.175****Add SAIL AREAS (Square root)****13.413****TOTAL OF MEASUREMENTS****28.116**

PENALTY (Draft or Tumblehome)

0.000

**RATING****11.863**

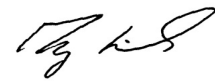
Date and Place of Measurement

11-Jun-22 Glücksburg

Measurer's Name(s)

Kay-Enno Brink

Signature



<b>Yacht's name : SPHINX</b>		<b>Date</b>	<b>11-Jun-22</b>
Range Measurement (Yes or No)	N	Date:	11-Jun-22

## PENALTIES

Overhang Forward to <b>MWL</b>	3.537	
Overhang Aft to <b>MWL</b>	3.993	
Subtract from overall length	7.530	
Difference of immersion from salt to fresh water	Meas. Density	
<b>WATERLINE LENGTH (LWL)</b>		<b>13.950</b>
Minimum Displacement for Zero Penalty [m3]	25.412	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	26.047	
<b>WEIGHT [tonne]</b> Actual weight		<b>27.000</b>
Equivalent LWL (for Displ. < min.)	14.127	
Difference	0.177	
<b>DISPLACEMENT PENALTY (add to L)</b>		<b>0.000</b>
Displacement Determination Method	3D-Scan	
<b>DRAFT (actual)</b>	2.714	
Max. Draft for Zero Penalty	2.732	
Difference (if positive)		
<b>DRAFT PENALTY (add to Rating)</b>		<b>0.000</b>
<b>BEAM (Min)</b>	3.600	
Max Beam at 1/3 of Midship Freeboard	3.608	
Difference (if positive)		
<b>BEAM PENALTY (add to L)</b>		<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.144	
Extreme Beam	3.608	
Beam at deck	3.520	
Difference (if positive)	0.088	
<b>TUMBLEHOME PENALTY (add to Rating)</b>		<b>0.000</b>

Date and Place of Measurement	11-Jun-22    Glücksburg	
Measurer's Name(s)	Kay-Enno Brink	Signature

Design/Age Correction Factor Calculation		
Age Date	1939	
ADCF ( Table E-2)	0.96	
Hull Alteration Scope and Date	n/a	
Appendage Change Scope and Date	n/a	
Change/Alteration Correction ADCF	n/a	
Accommodation Deficiency Ballast	202 kg	

Yacht's name : **SPHINX**

Date

11-Jun-22

**SAIL PLAN**

Max Height of Sail Plan =	<input type="text" value="25.000"/>	J=	<input type="text" value="6.700"/>	I =	<input type="text" value="18.740"/>
Boom above Mast Datum =	<input type="text" value="1.520"/>	P=	<input type="text" value="23.480"/>	E=	<input type="text" value="10.640"/>
Rated Mainsail Area	<input type="text" value="124.914"/>	Spi boom=	<input type="text" value="6.905"/>	√S=	<input type="text" value="13.413"/>
J used for Rating	<input type="text" value="6.905"/>				
Rated Foretriangle Area	<input type="text" value="54.995"/>	Propeller allowance		<input type="text" value="1.000"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="179.908"/>	Corrected sail area		<input type="text" value="179.908"/>	

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="7.235"/>	3/4 height (41% of E)	<input type="text" value="4.362"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="11.500"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="8.631"/>	max. luff length=	<input type="text" value="18.477"/>

**Spar Measurement**

MAST (material)	<input type="text" value="wood"/>	Mast Weight	<input type="text"/>	CG pos.	<input type="text"/>
	Deck	Half-Height	Jib-Halyard	Head	
Mast dimensions [mm]	<input type="text" value="297*224"/>	<input type="text" value="318*236"/>	<input type="text" value="280*216"/>	<input type="text" value="153*134"/>	
Sections area [cm <sup>2</sup> ]	<input type="text" value="522"/>	<input type="text" value="589"/>	<input type="text" value="475"/>	<input type="text" value="161"/>	
Mast CG Correction (if applicable) Wt & CG	<input type="text"/>		Mk <sup>2</sup>	<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 Flotation measured on the 11th of June 2022 in Glücksburg, specific seawater gravity 1.014 t/m<sup>3</sup>.
- 2 The water tank was filled with 115 l water when the yacht was presented for measurement.
- 3 Lead pigs in the bilge, 180.0 kg in total, located 0.5 m in front of mast.
- 4 202 kg compensation ballast to account for partly missing accommodation.
- 5 30 kg anchor, 2.0 m aft of mid girth station.
- 6 Anchor chain and rope, 2.5 m in front of mid girth station.
- 7 Two 12V service batteries, 210 Ah, 1.0 m in front of mid girth station.

**Measurer's Notes**

- 1 Rated freeboard is one third of the sum of the mean freeboards as per 1933 rule.
- 2 Displacement volume derived by 3D hull scan.

Date and Place of Measurement

11-Jun-22 Glücksburg

Measurer's Name(s)

Kay-Enno Brink

