

12



INTERNATIONAL TWELVE METRE CLASS

Yacht's Name THEA

National letters and Sail Number D1 Club Kongelig Dansk Yachtklub

Designer Johan Anker

Builder Anker & Jensen Year Built 1918

Owner Hans Michael Jebsen

Owner's Address c/o Capemille Aps, Kvæsthusgade 1, 1251 Kopenhagen

Lloyds R class certificate (Number or Date) _____

APPENDIX E - 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 December 20, 2017


Measurer K.-E. Brink

Signature 

Valid until December 19, 2019

Supersedes August 3, 2013

Signature 
ITMA Technical Director


Stamp of Authority of the
International Twelve Metre Association

CERTIFICATE REVALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated 20 December 2017. Accordingly this certificate has been revalidated and remains valid until 30 June 2023 subject to a successful flotation being carried out by a class measurer prior to racing .

Signature 
ITMA Technical Director June 30 2021

RATING CALCULATION

OVERALL LENGTH

Overhang Forward to L1	2.673	
Overhang Aft to L1	2.972	
Total Overhang (Subtract)	5.645	

20.063

MEASURED LENGTH (L1 L1)

Girth at Bow	1.694	
Twice vertical Height at Bow (Subtract)	1.200	
O at Bow	0.494	
Add 1 1/2 O at Bow (min 0.540 m)	0.741	
Girth at Stern	3.123	
Twice vertical Height at Stern (Subtract)	1.584	
O at Stern	1.539	
Add 1/3 O at Stern (min 0.400 m)	0.513	
Add any penalty (Beam)	0.000	

14.418

Sum of Length and Girth Corrections

15.672

Age Date and Allowance

1918

Allowance 0.9469

CORRECT LENGTH L

14.840

Skin d to d1 Port	3.227	
Chain d to d1 Port	3.175	
d Port	0.052	
Skin d to d1 Starboard	3.230	
Chain d to d1 Starboard	3.176	
d Starboard	0.054	
Add d	0.106	

Add GIRTH 2 d

0.212

Mean Freeboard Bow O	Actual	1.260	1.267	
Mean Freeboard Midship d	Actual	0.982	0.990	
Mean Freeboard Stern O	Actual	0.965	0.972	
Sum of Freeboards			3.229	

Subtract FREEBOARD, F

See Notes

1.076

Add SAIL AREAS (Square root)

12.864

TOTAL OF MEASUREMENTS


26.840

PENALTY (Tumblehome)

0.199

RATING

11.523

Date and place of Measurement	December 20, 2017		
Measurer's Name(s)	K.-E. Brink	Signature	
Certificate Revalidated	30-Jun-21	Certificate Valid Until	30-Jun-23

PENALTIES

OVERALL LENGTH

	20.063
Overhang Forward to L	3.508
Overhang Aft to L	3.613
Subtract from overall length	7.121
Difference of imersion from salt to fresh water	0.008

WATERLINE LENGTH

	12.942
Minimum Displacement for Zero Penalty [m3]	20.535
Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025)	21.048

ACTUAL WEIGHT [tonnes]

	23.654
Equivalent LWL (for Displ. < min.)	13.603
Difference	0.661
DISPLACEMENT PENALTY (add to L)	0.000

DRAUGHT (actual)

	2.563
Max. Draught for Zero Penalty	2.571
Difference (if positive)	
DRAUGHT PENALTY (add to Rating)	0.000

BEAM (Min)

	3.600
Max Beam at 1/3 of Midship Freeboard	3.495
Difference (if positive)	0.105
BEAM PENALTY (add to L)	0.000
Tumblehome Max. (2 x 2% of Extr. Beam)	0.140
Extreme Beam	3.495
Beam at deck	3.289
Difference (if positive)	0.206
TUMBLEHOME PENALTY (add to Rating)	0.199

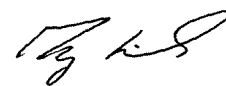
Date and place of Measurement

December 20, 2017

Measurer's Name(s)

K.-E. Brink

Signature



Certificate Revalidated

30-Jun-21

Certificate Valid Until

30-Jun-23

SAIL PLAN

Max Height of Sail Plan =	24.206	J=	6.850	I =	18.747
Boom Height =	1.226	A=	22.980	B=	9.310
Rated Mainsail Area	106.972	Spi boom=	7.660	eS=	12.864
Rated Foretriangle Area	61.031	Propeller allowance			0.985
TOTAL RATED SAIL AREA	168.003	Corrected sail area			165.483

SAIL LIMITS

Mainsail max girth:	1/2 height (68%)	6.331	3/4 height (41%)	3.817
Genoa:	max. foot length (J + 4.8m)	11.650		
Spinnaker:	1/2 foot max breadth (125% J)	9.575	max. luff length=	18.701

Spar Measurement

MAST (material)	Wood	Mast Weight	601	CG pos.	9.624
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	325*251	334*244	270*208	183*156	
Sections area [cm ²]	640	640	441	224	

Engine/Propeller Installation


Engine and propeller weight		Propeller diameter =	> 0.400
Minimum boat speed with engine	> 7 kn	Propeller position =	on centreline
Engine model and power			

Flotation

- 1 Flotation measured on the 29th of June 2017 in Glücksburg, specific seawater gravity 1.013 t/m³
- 2 No internal Ballast

Measurer's Notes

- 1 Freeboard in Rating as per 1933-1970 Rule (Sum/3,Max 1.21)
- 2 No beam penalty applied according to Appendix E
- 3 Displacement volume derived by 3D hull scan
- 4 Flotation Range Measurement was applied, hull marks valid for specific seawater gravity of 1.013 t/m³
- 5 New wooden mast manufactured by Robbe & Berking Classics 2017

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