



# 12

## INTERNATIONAL TWELVE METRE CLASS

Yacht's Name TRIVIA (No Engine)

National letters and Sail Number K-10 Club \_\_\_\_\_

Designer Charles Nicholson

Builder Camper and Nicholson Building Year 1937

Owner Trivia GmbH

Owner's Address Rothenbaumchaussee 69, 20148, Hamburg, Germany

Lloyds R class certificate (Number or Date) Lloyds

### 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 July 12, 2014

Measurer K McAlpine Signature \_\_\_\_\_

Valid until July 11, 2016

Supersedes September 18, 2007



Signature   
ITMA Technical Director

Stamp of Authority of the International Twelve Metre Association

### PROVISIONAL CERTIFICATE REVALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated July 12, 2014. Accordingly this certificate has been revalidated and remains valid until March 30, 2020 subject to a successful flotation being carried out by a class measurer prior to racing.

Signature  March 31, 2018  
ITMA Technical Director

# RATING CALCULATION

<b>OVERALL LENGTH</b>		<b>21.271</b>
Overhang Forward to L1	2.650	
Overhang Aft to L1	2.694	
Total Overhang (Subtract)	5.344	
<b>MEASURED LENGTH (L1 L1)</b>		<b>15.927</b>
Girth at Bow	1.630	
Twice vertical Height at Bow (Subtract)	1.200	
O at Bow	0.430	
Add 1 1/2 O at Bow (min 0.540 m)	<b>0.645</b>	
Girth at Stern	2.892	
Twice vertical Height at Stern (Subtract)	1.572	
O at Stern	1.320	
Add 1/3 O at Stern (min 0.400 m)	<b>0.440</b>	
Add any penalty (Beam)	<b>0.000</b>	
Sum of Length and Girth Corrections		<b>17.012</b>
Age Date and Allowance	1937	Allowance 0.9590
<b>CORRECT LENGTH L</b>		<b>16.314</b>
Skin d to d1 Port		
Chain d to d1 Port		
d Port	0.014	
Skin d to d1 Starboard		
Chain d to d1 Starboard		
d Starboard	0.014	
Add d	0.028	
<b>Add GIRTH 2 d</b>		<b>0.056</b>
Mean Freeboard Bow O	Actual 1.405	1.405
Mean Freeboard Midship d	Actual 1.066	1.066
Mean Freeboard Stern O	Actual 0.966	0.966
Sum of Freeboards		3.437
<b>Subtract FREEBOARD, F</b>		<b>1.146</b>
<b>Add SAIL AREAS (Square root)</b>		<b>13.217</b>
<b>TOTAL OF MEASUREMENTS</b>		<b>28.441</b>
<i>PENALTY (Draught)</i>		0.000
<b>RATING</b>		<b>12.000</b>

Date and place of Measurement

July 12, 2014

Measurer's Name(s)

K McAlpine Signature



Certificate Revalidated

March 31, 2018 Certificate Valid Until

March 30, 2020

## PENALTIES

Overhang Forward to L	3.170	
Overhang Aft to L	3.518	
Subtract from overall length	6.688	
Difference of imersion from salt to fresh water		

**WATERLINE LENGTH**

Minimum Displacement for Zero Penalty [m3]	28.838	<b>14.583</b>
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	29.559	

**WEIGHT [ton]**

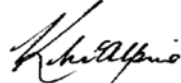
Additional weight		Append E Cert
Equivalent LWL (for Displ. < min.)		
Difference		
DISPLACEMENT PENALTY (add to L)		Append E Cert

**DRAUGHT (actual)**

Max. Draught for Zero Penalty	2.832	
Difference (if positive)	2.799	
DRAUGHT PENALTY (add to Rating)	0.033	<b>0.000</b>

**BEAM (Min)**

Max Beam at 1/3 of Midship Freeboard	3.600	
Difference (if positive)	3.610	
BEAM PENALTY (add to L)	-0.010	<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.144	
Extreme Beam	3.610	
Beam at deck	3.510	
Difference (if positive)	0.100	
TUMBLEHOME PENALTY (add to Rating)		<b>0.000</b>

Date and place of Measurement	July 12, 2014	
Measurer's Name(s)	K McAlpine	Signature 
Certificate Revalidated	March 31, 2018	Certificate Valid Until <b>March 30, 2020</b>

**SAIL PLAN**

Max Height of Sail Plan =	<input type="text" value="25.000"/>	J=	<input type="text" value="6.880"/>	I =	<input type="text" value="18.740"/>
Boom Height =	<input type="text" value="1.220"/>	A=	<input type="text" value="23.780"/>	B=	<input type="text" value="10.084"/>
Rated Mainsail Area	<input type="text" value="119.899"/>	Spi boom=	<input type="text" value="6.880"/>		<input type="text" value="13.217"/>
Rated Foretriangle Area	<input type="text" value="54.796"/>	Propeller allowance			<input type="text" value="1.000"/>
TOTAL RATED SAIL AREA	<input type="text" value="174.695"/>	Corrected sail area			<input type="text" value="174.695"/>

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68%)	<input type="text" value="6.857"/>	3/4 height (41%)	<input type="text" value="4.134"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="11.680"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="8.600"/>	max. luff length=	<input type="text" value="18.470"/>

**Spar Measurement**

MAST (material)	<input type="text" value="Aluminium"/>	Mast Weight	<input type="text"/>	CG pos.	<input type="text"/>
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Sections area [cm <sup>2</sup> ]	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

**Engine/Propeller Installation**

Engine and propeller weight	<input type="text"/>	Propeller diameter =	<input type="text"/>
Minimum boat speed with engine	<input type="text"/>	Propeller position =	<input type="text"/>
Engine model and power	<input type="text" value="None"/>		

**Flotation**

Internal Ballast	Nil
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**Measurer's Notes**

- 1 Measured according to 1934 Rule
- 2 Age Allowance takes account of Bermudian rig
- 3 Certificate assumes engine and prop are NOT fitted whilst racing
- 4 Certificate based on float in Barcelona and calculations from IMS Hull Data
- 5

Date and place of Measurement

July 12, 2014

Measurer's Name(s)

K McAlpine

Signature



Certificate Revalidated

March 31, 2018

Certificate Valid Until

March 30, 2020