



# 12

## INTERNATIONAL TWELVE METRE CLASS

### WINGS

Yacht's Name WINGS

National letters and Sail Number K 15 Club Royal Solent Yacht Club

Designer Camper and Nicholson UK

Builder Camper and Nicholson UK Building Year 1937

Owner Hyco Ltd

Owner's Address 54/62 Anthol St, Isle of Man IM11Jd UK

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 July 12, 2014

Measurer McAlpine/Sironi

Signature

Valid until July 12, 2016

Supersedes September 24, 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   
ITMA Technical Director March 31, 2018

## RATING CALCULATION

**OVERALL LENGTH**

Overhang Forward to L1

2.757

21.440

Overhang Aft to L1

3.330

Total Overhang (Subtract)

6.087

**MEASURED LENGTH (L1 L1)**

Girth at Bow

1.633

15.353

Twice vertical Height at Bow (Subtract)

1.200

O at Bow

0.433

Add 1 1/2 O at Bow (min 0.540 m)

0.650

Girth at Stern

3.108

Twice vertical Height at Stern (Subtract)

1.804

O at Stern

1.304

Add 1/3 O at Stern (min 0.400 m)

0.435

Add any penalty (Beam)

0.000

Sum of Length and Girth Corrections

16.437

Age Date and Allowance

1937

Allowance

0.9589

**CORRECT LENGTH L**

15.762

Skin d to d1 Port

3.229

Chain d to d1 Port

3.216

d Port

0.013

Skin d to d1 Starboard

3.225

Chain d to d1 Starboard

3.215

d Starboard

0.010

Add d

0.023

**Add GIRTH 2 d**

0.046

Mean Freeboard Bow O

Actual

1.394

1.394

Mean Freeboard Midship d

Actual

1.099

1.099

Mean Freeboard Stern O

Actual

1.082

1.082

Sum of Freeboards

3.575

**Subtract FREEBOARD, F**

See Notes

1.192

**Add SAIL AREAS (Square root)**

13.824

**TOTAL OF MEASUREMENTS**

28.440

PENALTY (Draught )

0.000

**RATING**

12.000

Date and place of Measurement

July 12, 2014

Measurer's Name(s)

McAlpine/Sironi Signature



Certificate revalidated

March 31, 2018 Certificate valid until

March 30 2020

Yacht's name : WINGS

K 15

July 12, 2014

## PENALTIES

Overhang Forward to L	3.283	
Overhang Aft to L	3.980	
Subtract from overall length	7.263	
Difference of imersion from salt to fresh water	0.000	
<b>WATERLINE LENGTH</b>		<b>14.177</b>
Minimum Displacement for Zero Penalty [m3]	26.608	
Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025)	<b>27.273</b>	
<b>ACTUAL WEIGHT [tonnes]</b>		Append E
Equivalent LWL (for Displ. < min.)		
Difference		
DISPLACEMENT PENALTY (add to L)		Append E
<b>DRAUGHT (actual)</b>	2.750	
Max. Draught for Zero Penalty	2.768	
Difference (if positive)	-0.018	
DRAUGHT PENALTY (add to Rating)		0.000
<b>BEAM (Min)</b>	3.600	
Max Beam at 1/3 of Midship Freeboard	3.600	
Difference (if positive)	0.000	
BEAM PENALTY (add to L)		<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.144	
Extreme Beam	3.600	
Beam at deck	3.480	
Difference (if positive)	0.120	
TUMBLEHOME PENALTY (add to Rating)		<b>0.000</b>

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**SAIL PLAN**

Max Height of Sail Plan =	<input type="text" value="25.000"/>	J=	<input type="text" value="7.685"/>	I =	<input type="text" value="18.750"/>
Boom Height =	<input type="text" value="1.380"/>	A=	<input type="text" value="23.620"/>	B=	<input type="text" value="10.996"/>
Rated Mainsail Area	<input type="text" value="129.863"/>	Spi boom=	<input type="text" value="7.685"/>	√S=	<input type="text" value="13.824"/>
Rated Foretriangle Area	<input type="text" value="61.240"/>	Propeller allowance			<input type="text" value="1.000"/>
TOTAL RATED SAIL AREA	<input type="text" value="191.103"/>	Corrected sail area			<input type="text" value="13.824"/>

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68%)	<input type="text" value="7.477"/>	3/4 height (41%)	<input type="text" value="4.508"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="12.485"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="9.606"/>	max. luff length=	<input type="text" value="18.711"/>

**Spar Measurement**

MAST (material)	<input type="text" value="Wood"/>	Mast Weight	<input type="text" value="480"/>	CG pos.	<input type="text" value="9.670"/>
Mast dimensions [mm]	<input type="text" value="310x246"/>	Half-Height	<input type="text" value="305x245"/>	Jib-Halyard	<input type="text" value="242x208"/>
				Head	<input type="text" value="157x134"/>
Sections area [cm <sup>2</sup> ]	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Engine/Propeller Installation**

Engine and propeller weight	<input type="text" value="Nil"/>	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"/>		

**Flotation**

Internal Ballast	Amount	Location from Bow
chain	234 kg	15.15 m
lead	600 kg	8.8 m

**Measurer's Notes**

- 1 Measured according to 1934 Rule
- 2 Age allowance take into account bermudian rig
- 3 2007 new deck deck camber back to original

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McAlpine/Sironi Signature



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