

MAY -7 1937

Index. No. 35264
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

N^o 32081

Ship's Name "LLANDAFF"	Official Number 165463	Nationality and Port of Registry British London	Gross Tonnage 4825 <i>4822</i> <i>Imp Tons 3/8/14</i>	Date of Build 1937	Port of Survey Sunderland.
Moulded Dimensions: Length 410' ✓ Breadth 56.29' ✓ Depth 27.67' ✓					Date of Survey Whist building.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 11400 tons					Surveyor's Signature Jas. J. Herne
Coefficient of fineness for use with Tables .735 ✓					Particulars of Classification +100 A1 with fullboard (work-embodied).

Depth for Freeboard (D). Moulded depth ... 27.67 Stringer plate ... 4.5"04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 27.41	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = $(27.41 - 27.33) 3.00 = +1.14"$ (b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓ If restricted by superstructures ✓	Round of Beam correction. Moulded Breadth (B) 56.29 Standard Round of Beam = $\frac{B \times 12}{50} = 13.51"$ Ship's Round of Beam = 13.00 Difference Deficient = .51 Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.51}{4} \times .0063 = \text{NIL.}$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height <i>See 8th/14th</i>	Height Correction	Effective Length (E)	
Poop enclosed ...	31.92	31.92	10.75	✓	31.92	Standard Height of Superstructure 7.50'
" overhang ...	✓					" " R.Q.D. ✓
R.Q.D. enclosed ...	✓					Deduction for complete superstructure 42.00"
" overhang92					Percentage covered $\frac{S}{L} = 100.00$
Bridge enclosed ...	372.92	372.92	8.50	✓	372.92	" $\frac{S_1}{L} = 99.37$
" overhang aft ...	✓					" $\frac{E}{L} = 99.37$
" overhang forward ...	✓					Percentage from Table, Line A. 99.22
F'cle enclosed ...	✓					(corrected for absence of forecastle (if required))
" overhang ...	✓					Percentage from Table, Line B. ✓
Trunk aft ...	✓					(corrected for absence of forecastle (if required)) ✓
" forward16	1/2 diff				Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft ...	5'-4"	2.58	✓	✓	2.58	Deduction = 42.00 × .9922 = 41.67"
" " forward ...	✓					
Total ...	410'-0	407.42			407.42	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	51.00	1		51.00	+12.0"	72.0	1		84.00	Mean actual sheer aft =
1/4 L from A.P. ...	22.69	4		90.76	33.0	37.38	4		149.52	Mean standard sheer aft =
1/2 L " ...	5.61	2		11.22	8.37	9.24	2		18.48	Mean actual sheer forward =
Amidships ...	-	4		-	✓	-	4		-	Mean standard sheer forward =
3/4 L from F.P. ...	11.22	2		22.44	10.0	15.84	2		31.68	Length of enclosed superstructure forward of amidships =
1/4 L " ...	45.38	4		181.52	51.5	63.50	4		254.00	" " aft of " =
F.P. ...	102.00	1		102.00	132.0	144.00	1		144.00	
Total ...				458.94	+12.0"				681.68	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{222.74}{18} (.75 - .50) = -3.09"$
 If limited on account of midship superstructure ✓

Actual sheer deck height = 8.5 -
 Standard " " = 7.5 -
 Excess = 1.0 -
 = 12"

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 27.41 Summer freeboard = 2.83 Moulded draught (d) = 24.88 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.22 = 6 1/4" Addition for Winter North Atlantic Freeboard (if required) = ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 12.334$ Tons per inch immersion at summer load water line $T = 45.23$ Deduction = $\frac{\Delta}{40 T}$ inches $= 6.82 = 6 3/4"$	TABULAR FREEBOARD corrected for Fresh Deck (if required) Correction for coefficient $\frac{68 + 735}{1.36} = \frac{1.415}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>1.14</td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td>41.67</td> </tr> <tr> <td>Sheer correction ...</td> <td></td> <td>3.09</td> </tr> <tr> <td>Round of Beam correction ...</td> <td></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td></td> <td></td> </tr> <tr> <td></td> <td>1.14</td> <td>44.76</td> </tr> <tr> <td>Summer Freeboard =</td> <td colspan="2">33.99</td> </tr> </table>		+	-	Depth Correction ...	1.14		Deduction for superstructures ...		41.67	Sheer correction ...		3.09	Round of Beam correction ...			Correction for Thickness of Deck amidships ...			Other corrections, scantlings, etc. ...				1.14	44.76	Summer Freeboard =	33.99	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ... 13"	Tropical Fresh Water Freeboard ... 2'-10"
Fresh Water Line " " ... 6 3/4"	Fresh Water " " ... 2'-9"
Tropical Line " " ... 6 1/4"	Tropical " " ... 2'-3 1/2"
Winter Line below " " ... 6 1/4"	Winter " " ... 3'-4 1/2"
Winter North Atlantic Line " " ... ✓	Winter North Atlantic " " ... ✓

11 MAY 1937

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

External displacement at actual draft $24'-10" = 12210$ tons.

Tons per inch. 45.23 tons.

[Signature]

Trade of ship

Names of sister ships

"*Florashe*" (Barkham No. 273)

Builder's name and yard number

Barkham & Sons Ltd. No. 275.

Owners

Evan, Thomas Radcliffe & Co.

Fee £

15 0 0

Will be charged on completion



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Foundation