

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. 35672
(For London Office only.)

No 32398

Ship's Name SYLVIA BEALE	Official Number 166480	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 1040 <i>1061 per M.O.T. letter 18/1/54</i>	Date of Build 1938	Port of Survey Sunderland
Moulded Dimensions: Length 209.00 Breadth 34.00 Depth 15.33 (R.Q.D. 19.08)				Date of Survey while Building	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1965 tons				Surveyor's Signature <i>W. G. L. Lister</i>	
Coefficient of fineness for use with Tables .7427				Particulars of Classification +100A.1. (class contemplated)	

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth ...	15.33	(a) Where D is greater than Table depth (D-Table depth) R = $(15.36 - 13.93) \div 1.43 = +2.30$		Moulded Breadth (B)	34.00
Stringer plate ...	R.Q.D. 34.03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50} =$	8.16"
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam =	8 1/2"
Depth for Freeboard (D) =	15.36			Difference	.34"
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$	$\frac{.34}{4} \times .271 = -.02"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	✓					Standard Height of Superstructure 6.00'
„ overhang ...	✓					„ „ R.Q.D. 3.727'
R.Q.D. enclosed ...	119.91	119.91	3.75	3.75'	119.91'	Deduction for complete superstructure 26.90"
„ overhang ...	✓					Percentage covered $\frac{S}{L} =$ 73.00
Bridge enclosed. <i>equivalent</i>	11.33	11.33	7.00	7.00'	11.33'	„ „ $\frac{S_1}{L} =$ 72.90
„ overhang aft ...	✓					„ „ $\frac{E}{L} =$ 72.90
„ overhang forward	✓					Percentage from Table, Line A. 66.57
F'cle enclosed ...	19.09	19.09	7.00	7.00'	19.09'	(corrected for absence of forecastle (if required))
„ overhang ...	2.25	2.03			2.03'	Percentage from Table, Line B.
Trunk aft ...	✓					(corrected for absence of forecastle (if required))
„ forward ...	✓					Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...	✓					Deduction = 26.90" x .6657 = -17.91"
„ „ forward	✓					
Total ...	152.58	152.36			152.36	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	30.90	1		30.90	27	27.28	1		27.28
1/4 L from A.P. ...	13.75	4		55.00	12	12.14	4		48.56
1/2 L „ ...	3.40	2		6.80	3	3.00	2		6.00
Amidships ...	-	4		-	0	-	4		-
3/4 L from F.P. ...	6.80	2		13.60	7	7.00	2		14.00
1/4 L „ ...	27.50	4		110.00	28	28.00	4		112.00
F.P. ...	61.80	1		61.80	63	63.00	1		63.00
Total ...				278.10					270.84

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{7.26}{18} \left(.75 - \frac{36.5}{82.35} \right) = +.16$

If limited on account of midship superstructure.

Mean actual sheer aft = **27.28**
Mean standard sheer aft = **27.28**
Mean actual sheer forward = **28.00**
Mean standard sheer forward = **28.00**
Length of enclosed superstructure forward of amidships = **119.91'**
aft of „ = **11.33'**

After Sheer
Standard Virtual
30.90 1 30.90 27.28 1 27.28 72.70
13.75 3 41.25 12.14 4 48.56 36.42 72.70
3.40 2 10.20 3.00 2 6.00 9.00 82.35
- 4 0 - 1 1 82.35
Total 278.10 270.84 72.70

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.743 + .68}{1.36} = \frac{1.423}{1.36}$
Depth to Freeboard Deck = 19.11	$\Delta = 2220$	Depth Correction ... 2.30
Summer freeboard = 4.60	Tons per inch immersion at summer load water line	Deduction for superstructures ... 17.91
Moulded draught (d) = 14.51	$T = 14.66$	Sheer correction16
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.63 = 3 3/4	Deduction = $\frac{\Delta}{40T}$ inches = 3.78	Round of Beam correction02
Addition for Winter North Atlantic Freeboard (if required) = 5 3/4	- 3 3/4	Correction for Thickness of Deck amidships
		Other corrections, scantlings, etc. ... 45.00
		47.46 17.93 + 29.53
		Summer Freeboard = 55.30

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel Deck:

Tropical Fresh Water Line above Centre of Disc ...	7 1/2	Tropical Fresh Water Freeboard ...	4 1/4
Fresh Water Line „ „ ...	3 3/4	Fresh Water „ „ ...	4 - 3 1/2
Tropical Line „ „ ...	3 3/4	Tropical „ „ ...	4 - 3 1/2
Winter Line below „ „ ...	3 3/4	Winter „ „ ...	4 - 1 1/2
Winter North Atlantic Line „ „ ...	5 1/4	Winter North Atlantic „ „ ...	5 - 1

Sylvia Beale

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.

Actual displacement at actual draft 14'6" = 2220 tons
T.P.I. = 14.66.

Trade of ship

✓

Names of sister ships

SS. ELEANOR BROOKE SLO. RPT. N° 32313 SS. ELIZABETH LYSAGHT SLO. RPT. N°

Builder's name and yard number

S. P. Austin & Sons Ltd N° 348

Owners

Stephenson & Clarke & Associated Cos. Ltd

Fee £

10

Will be charged on completion



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Foundation