

JUN 24 1937

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

58549

Ship's Name **BOARDALE** Official Number **165489** Nationality and Port of Registry **British London** Gross Tonnage **8334.22** Date of Build **1937**

Port of Survey **Glasgow** Date of Survey **June 1937** Surveyor's Signature **Norman Dotson**

Moulded Dimensions: Length **465.08** Breadth **61.5** Depth **34.03**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **18372** tons

Coefficient of fineness for use with Tables **.777**

Particulars of Classification **+100 A1 Contemplated Carrying petroleum in Bulk.**

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	34.03	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	61.5
Stringer plate	.07	(34.10 - 31.01) x 3 =	+ 9.27	Standard Round of Beam = $\frac{B \times 12}{50}$	14.76
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	14.44
Depth for Freeboard (D) =	34.10	If restricted by superstructures		Difference $14.76 - 14.44$.32
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$.32 x .5807 = +.05

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	101.84	101.84	8'-0"	-	101.84
" overhang ...	3.50	1.75		-	1.75
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	36.00	36.00	8'-0"	-	36.00
" overhang aft ...	3.00	2.25		-	2.25
" overhang forward ...	3.50	1.75		-	1.75
Fore enclosed ...	49.12	49.12	8'-0"	-	49.12
" overhang ...	4.56	2.28		-	2.28
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	201.52	194.99			194.99

Standard Height of Superstructure **7.5**

" " R.Q.D. **42**

Deduction for complete superstructure

Percentage covered $\frac{S}{L} =$ **.43.33**

" " $\frac{S_1}{L} =$ **.41.93**

" " $\frac{E}{L} =$ **.41.93**

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **32.93**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **42 x .3293 = 13.83**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	56.51	1		56.51	51.00	51.00	1		51.00
1/2 L from A.P. ...	25.15	4		100.60	23.38	23.38	4		93.52
3/4 L " ...	6.22	2		12.44	5.88	5.88	2		11.76
Amidships ...		4					4		
3/4 L from F.P. ...	12.43	2		24.86	11.13	11.13	2		22.26
1/2 L " ...	50.29	4		201.16	44.88	44.88	4		179.52
F.P. ...	113.02	1		113.02	102.00	102.00	1		102.00
Total ...				508.59					460.06

Mean actual sheer aft = **Deficient**

Mean standard sheer aft

Mean actual sheer forward = **Deficient**

Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

" " aft of " = **Sanke**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{48.53}{18} \left(.75 - \frac{2166}{2 \times 465} \right) = +1.44$

If limited on account of midship superstructure. **.5334** 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 = **34.10**

Summer freeboard = **6.79**

Moulded draught (d) = **27.31**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.83 = 6 3/4**

Addition for Winter North Atlantic Freeboard (if required) = **6.83 + 4.65 = 11.48**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 17375$

Tons per inch immersion at summer load water line

$T = 58.67$

Deduction = $\frac{\Delta}{40T}$ inches = **7.40**

= **7 1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{.777 + .68}{1.36} = \frac{1.457}{1.36}$	
Depth Correction	9.27	
Deduction for superstructures	13.83	
Sheer correction	1.44	
Round of Beam correction	.05	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		

Summer Freeboard = **81.53**

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

Tropical Fresh Water Line above Centre of Disc	11 1/4	Tropical Fresh Water Freeboard	5 1/4
Fresh Water Line	7 1/2	Fresh Water	6'-5"
Tropical Line	6 3/4	Tropical	6'-2 3/4"
Winter Line below	6 3/4	Winter	7'-4 1/4"
Winter North Atlantic Line	11 1/2	Winter North Atlantic	7'-9"

B

Boardale

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.

Trade of ship International

Names of sister ships British Power, British Destroy

Builder's name and yard number Harland & Wolff No 971 G.

Owners British Admiralty.

Fee £ 19 : 0 : 0



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FoundationBoardale.