

Amended

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received

Index No.

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Owners C11

Ship's Name HINDLEA.	Official Number 164106	Nationality and Port of Registry BRITISH CARDIFF	Gross Tonnage 402.	Date of Build 1941.	Port of Survey BREITEN.
Moulded Dimensions: Length 161.38 Breadth 26.00 Depth 12.80					Date of Survey SEPT 1964
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 1000 17³ tons					Particulars of Classification +100 A1
Coefficient of fineness for use with Tables .774.					

DEPTH FOR FREEBOARD (D).

Moulded depth **12.80**

Stringer plate **.03**

Wood Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **12.83**

DEPTH CORRECTION.

- (a) Where D is greater than Table depth
(D - Table depth) R =
(12.83 - 10.46) 1.241 = 2.57
- (b) Where D is less than Table depth (if allowed)
(Table depth - D) R =
2.04

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **26.00**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **6.24**

Ship's Round of Beam = **6.50**

Difference **.26**

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.26^2}{4} \times .653 = -.04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed	42.50	42.50	4.95	✓	42.50
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	13.50	13.50	4.20	3.45	4.76
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	56.00	56.00			50.26

Standard Height of Superstructure **6.00**

" " R.Q.D. **3.409**

Deduction for complete superstructure **22.14**

Percentage covered $\frac{S}{L} =$ **34.07**

" " $\frac{S_1}{L} =$ **31.15**

" " $\frac{E}{L} =$ **15.98**

Percentage from Table, Line A. **15.98**

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = **22.14 x .1598 = 3.54**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	26.14	1	26.14	27.00	27.00	1	27.00	1	27.00
$\frac{1}{4}$ L from A.P.	11.63	4	46.52	7	7.00	4	28.00	4	28.00
$\frac{2}{4}$ L "	2.875	2	5.75	2	2.00	2	4.00	2	4.00
Amidships	0	4	0	0	0	4	0	4	0
$\frac{3}{4}$ L from F.P.	5.75	2	11.50	2	2.00	2	4.00	2	4.00
$\frac{4}{4}$ L "	23.26	4	93.04	19	19.00	4	76.00	4	76.00
F.P.	52.28	1	52.28	60	60.00	1	60.00	1	60.00
Total			235.23				199.01		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{36.23}{18} \left(.75 - \frac{.1735}{.5765} \right) = 1.16$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.**Addition for Winter and Winter North Atlantic Freeboard.**

Depth to Freeboard Deck = **12.83**

Summer freeboard = **1.54**

Moulded draught (d) = **11.29**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **2.822 2 $\frac{3}{4}$**

Addition for Winter North Atlantic Freeboard (if required) = **2 $\frac{3}{4}$ x 2 = 4 $\frac{3}{4}$**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T = **8.75**

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

$\frac{1}{4} = 2\frac{3}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	1.36	1.36	1.36
Depth Correction	2.57	✓	
Deduction for superstructures	✓	3.54	
Sheer correction	1.16	✓	
Round of Beam correction	✓	.04	
Correction for Thickness of Deck amidships	✓	✓	
Other corrections, scantlings, etc.	✓	✓	
	3.73	3.58	+ .15
			Summer Freeboard = 18.42

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

Tropical Fresh Water Line above Centre of Disc	5$\frac{1}{2}$
Fresh Water Line	2$\frac{3}{4}$
Tropical Line	2$\frac{3}{4}$
Winter Line below	2$\frac{3}{4}$
Winter North Atlantic Line	4$\frac{3}{4}$

Tropical Fresh Water Freeboard	1.1
Fresh Water	1.334
Tropical	1.334
Winter	1.914
Winter North Atlantic	1.114