

Annexed computation.
For copy issued 9/14/48
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
 (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index No. **37320**
 (For London Office only.)

Ship's Name BRIGHTON	Official Number 169168	Nationality and Port of Registry British Newcastle	Gross Tonnage 5248.10 <small>5221 M.O.T. 71-53</small>	Date of Build 1943 8mo.	Port of Survey
Moulded Dimensions: Length 412.50 Breadth 57.66 Depth 28.75					Date of Survey 1.11.48
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12415 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .748					Particulars of Classification +100 A1 W. fled.

DEPTH FOR FREEBOARD (D).

Moulded depth ... **28.75**

Stringer plate ... **.03**

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **28.78**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$
 $(28.78 - 27.50) \times 3 = +3.84$

(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) **57.66**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **13.84**

Ship's Round of Beam = **13.87**

Difference **.03**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ **.03 x 0.136 = Nil**

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	23.25	23.25			23.25
" overhang	12.50	6.25			6.25
R.Q.D. enclosed					
" overhang					
Bridge enclosed	371.75	371.75			371.75
" overhang aft					
" overhang forward					
Fore enclosed					
" overhang		$\frac{1}{2} \text{ diff}$			
Trunk aft					
" forward	5.00	5.63			5.63
Tonnage opening aft					
" " forward					
Total	412.50	406.88			406.88

Standard Height of Superstructure **7.50'**

" " R.Q.D.

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} =$ **100.00**

" " $\frac{S_1}{L} =$ **98.64**

" " $\frac{E}{L} =$ **98.64**

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

Percentage from Table, Line B.
 (corrected for absence of forecastle (if required)) **98.32**

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

Deduction = **42 x .9832 = -41.30**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	57.25	1		57.25	78.125	97.125	1		97.12
$\frac{1}{4}L$ from A.P.	22.81	4		91.24	34.875	43.22	4		172.88
$\frac{2}{4}L$ "	5.635	2		11.27	8.75	10.68	2		21.36
Amidships		4					4		
$\frac{3}{4}L$ from F.P.	11.225	2		22.55	11.625	13.64	2		27.28
$\frac{1}{4}L$ "	45.61	4		182.44	46.75	55.18	4		220.72
F.P.	102.50	1		102.50	105.00	124.00	1		124.00
Total				461.25	+19				663.36

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ **-2.81**

If limited on account of midship superstructure.

Mean actual sheer aft
 Mean standard sheer aft = **CXW**

Mean actual sheer forward
 Mean standard sheer forward = **CXW**

Length of enclosed superstructure forward of amidships = **LC.S.S.**

" " aft of " = **LC.S.S.**

Actual Twa. Dk HC = 9'-1"
Standard " " " = 7'-6"
1'-7" = 19"

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

Depth to Freeboard Deck = **28.78**

Summer freeboard = **3.25**

Moulded draught (d) = **25.53**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.38 = 6.2**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$
 Tons per inch immersion at summer load water line
 $T =$

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **.748 + .65 = 1.428 / 1.36**

Depth Correction ... **3.84**

Deduction for superstructures ... **41.30**

Sheer correction ... **2.81**

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

75.40

79.17

38.90

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

Tropical Fresh Water Line above Centre of Disc ... **13.2**

Fresh Water Line " " ... **7.4**

Tropical Line " " ... **6.2**

Winter Line below " " ... **6.2**

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ... **21.8**

Fresh Water " " ... **21.8**

Tropical " " ... **21.8**

Winter " " ... **21.8**

Winter North Atlantic " " ...