

TIMBER FREEBOARDS.

Lloyd's Register of Shipping.

Index. No. **36256**
(For London Office only).

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name EMPIRE PENGUIN (ex TENNESSEAN)	Official Number	Nationality and Port of Registry British London	Gross Tonnage	Date of Build 1919	Port of Survey Glasgow.
Moulded Dimensions: Length 402.00' Breadth 54.50' Depth 34.50'					Date of Survey 1st, 5th and 9th May 1940
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature J. W. Thurston
Coefficient of fineness for use with Tables .792					Particulars of Classification Class contemplated

Depth for Freeboard (D). Moulded depth Stringer plate Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.55	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = +23.25 ✓ (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) 54.5 Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ -0.14" ✓
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DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed	35.00			
„ overhang				
R.Q.D. enclosed				
„ overhang				
Bridge enclosed... ..				
„ overhang aft				
„ overhang forward				
F'cle enclosed	42.83			
„ overhang				
Trunk aft				
„ forward				
Tonnage opening aft ...				
„ „ forward				
Total	77.83			77.83

Standard Height of Superstructure **7.5"**

„ „ R.Q.D. ✓

Deduction for complete superstructure **42"**

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

„ „ $\frac{S_i}{L} =$ } **19.36** ✓

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. **TIMBER 40.81** ✓
(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 = **42.00 × 40.81 = -17.14"** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{4}$ L from A.P.		4				4	
$\frac{2}{4}$ L „		2				2	
Amidships		4				4	
$\frac{2}{4}$ L from F.P.		2				2	
$\frac{1}{4}$ L „		4				4	
F.P.		1				1	
Total							

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

„ „ aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ **No allowance**

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 = 34.55 Timber Summer freeboard = 7.00 Moulded draught (d) = 27.55 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.89 = 7" Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 9.18 = 9\frac{1}{4}"$	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 13740 Tons per inch immersion at summer load water line $T =$ 45.6 Deduction = $\frac{\Delta}{40T}$ inches = 7.55" = 7\frac{1}{2}"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align:center;">+</td> <td style="text-align:center;">-</td> </tr> <tr> <td>Depth Correction</td> <td style="text-align:right;">23.25</td> <td style="text-align:left;">-</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align:right;">-</td> <td style="text-align:left;">17.14</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align:right;">-</td> <td style="text-align:left;">-</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align:right;">-</td> <td style="text-align:left;">.14</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align:right;">-</td> <td style="text-align:left;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align:right;">-</td> <td style="text-align:left;">-</td> </tr> <tr> <td></td> <td style="text-align:right;">23.25</td> <td style="text-align:left;">17.28</td> </tr> <tr> <td></td> <td></td> <td style="text-align:right;">+5.97</td> </tr> <tr> <td></td> <td></td> <td style="text-align:right;">Summer Freeboard = 84.03</td> </tr> </table>		+	-	Depth Correction	23.25	-	Deduction for superstructures	-	17.14	Sheer correction	-	-	Round of Beam correction	-	.14	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		23.25	17.28			+5.97			Summer Freeboard = 84.03
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TIMBER SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :- Timber Tropical Fresh Water Line above Centre of Disc ... 27\frac{1}{2}" „ Fresh Water Line „ „ ... 20\frac{1}{2}" „ Tropical Line „ „ ... 20" „ Winter Line above „ „ ... 33\frac{1}{4}" „ Winter North Atlantic Line below „ „ ... 6\frac{1}{2}"	Timber Tropical Fresh Water Freeboard ... 5'-9\frac{1}{2}" „ Fresh Water „ „ ... 6'-4\frac{1}{2}" „ Tropical „ „ ... 6'-5" „ Winter „ „ ... 7'-7\frac{1}{4}" „ Winter North Atlantic „ „ ... 8'-7\frac{1}{2}"
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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 _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ : : _____



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Foundation