

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "EMPIRE MALLORY"	Official Number 168684	Nationality and Port of Registry BRITISH. GLASGOW.	Gross Tonnage 6327 Fbd	Date of Build 1941	Port of Survey Glasgow.
Moulded Dimensions: Length 401'0 Breadth 54'5 Depth 36'5 ^{to upper DB} 27'4 ^{27'4} 27'4					Date of Survey while building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 14081 tons " " " " (36'5) 14995					Surveyor's Signature R. Dumbear
Coefficient of fineness for use with Tables 774					Particulars of Classification +100 A1 "WITH FREEBOARD" (Contemplated)

Depth for Freeboard (D). 36'50	Depth correction.	Round of Beam correction.
Moulded depth ... 27'67	(a) Where D is greater than Table depth (D - Table depth) R = $(36'55 - 27'75) \times 3 = +29'40"$	Moulded Breadth (B) 54'5
Stringer plate 0'50 ^{at 2nd DECK} 0'50 ^{4th DECK}	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $9'80$	Standard Round of Beam = $\frac{B \times 12}{50} = 13'08$
Sheathing on exposed deck Fbd	If restricted by superstructures ✓	Ship's Round of Beam = 13"
T $\left(\frac{L-S}{L}\right) = N/L$		Difference Deficiency 08
Depth for Freeboard (D) = 36'55		Restricted to ✓
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{08}{4} \times 0.9259 = +02"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Roop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
File enclosed (29'6) ^{at INCREASED DRAUGHT}	29'6	29'75	7'0"	✓	29'75
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	29'75	29'75			29'75

Standard Height of Superstructure 7'50	
" " R.Q.D. ✓	
Deduction for complete superstructure 42'00"	
Percentage covered $\frac{S}{L} = 7.41$	
" " $\frac{S_1}{L} = 7.41$	
" " $\frac{E}{L} = 7.41$	
Percentage from Table, Line A. 3.71	
(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 \times 0.371 = -15'56"	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	50.13	1		50.13	54'0	54'00	1		54'00
1/4 L from A.P. ...	22.31	4		89.24	27'5	27'50	4		110'00
1/2 L " ...	5.51	2		11.02	7'25	7'25	2		14'50
Amidships ...	-	4		-	0	-	4		-
3/4 L from F.P. ...	11.03	2		22.06	13'5	13'50	2		27'00
1/4 L " ...	44.62	4		178.48	54'0	54'00	4		216'00
F.P. ...	100.25	1		100.25	120'0	120'00	1		120'00
Total ...				451.18					541.50

Mean actual sheer aft = Excess.	
Mean standard sheer aft	
Mean actual sheer forward = Excess.	
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships = 71'39	
" " aft of " = 1'56	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{90'32 - (75 - \frac{1'56}{2})}{18} = \frac{15'32}{18} = 0.8511$	
If limited on account of midship superstructure. Yes, no allowance	
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 $\frac{71'39 + 1'56}{1'36} = 1.454$	
Depth to Freeboard Deck = 36'55	$\Delta = 12570$	Depth Correction ... 29'40	
Summer freeboard = 10'21	Tons per inch immersion at summer load water line	Deduction for superstructures ... 156	
Moulded draught (d) = 26'34	T = 43'19	Sheer correction ... 02	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6'59 = 6 1/2"	Deduction = $\frac{\Delta}{40T}$ inches = $\frac{12570}{40 \times 43'19} = 7'16$ = 7 1/4"	Round of Beam correction ... 02	
Addition for Winter North Atlantic Freeboard (if required) =	Full Dr ² Disp ² (S.W.) T.P.I.	Correction for Thickness of Deck amidships ... 16'12	
	26'0" 12330 43'9	Other corrections, scantlings, etc. to draught of 26' - 4 1/8"	
	27'0" 12858 44'1		
		Summer Freeboard = 122'50	

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

Tropical Fresh Water Line above Centre of Disc	133 1/4"
Fresh Water Line	7 1/4"
Tropical Line	6 1/2"
Winter Line below	6 1/2"
Winter North Atlantic Line	✓

Tropical Fresh Water Freeboard	9' - 0 3/4"
Fresh Water	9' - 7 1/4"
Tropical	9' - 8"
Winter	9' - 9"
Winter North Atlantic	✓

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.

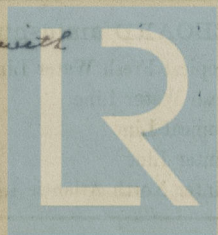
Form for Surveyor's Endorsement. The form is divided into several sections. The top section contains the ship's name "Empire Mollory", its home port "Glasgow", and its date of survey "1941". The middle section contains the ship's tonnage "11000" and the date of survey "11/01/41". The bottom section contains the ship's name "Empire Mollory" and the date of survey "11/01/41".

Form for Surveyor's Endorsement. The form is divided into several sections. The top section contains the ship's name "Empire Mollory", its home port "Glasgow", and its date of survey "1941". The middle section contains the ship's tonnage "11000" and the date of survey "11/01/41". The bottom section contains the ship's name "Empire Mollory" and the date of survey "11/01/41".

Form for Surveyor's Endorsement. The form is divided into several sections. The top section contains the ship's name "Empire Mollory", its home port "Glasgow", and its date of survey "1941". The middle section contains the ship's tonnage "11000" and the date of survey "11/01/41". The bottom section contains the ship's name "Empire Mollory" and the date of survey "11/01/41".

Form for Surveyor's Endorsement. The form is divided into several sections. The top section contains the ship's name "Empire Mollory", its home port "Glasgow", and its date of survey "1941". The middle section contains the ship's tonnage "11000" and the date of survey "11/01/41". The bottom section contains the ship's name "Empire Mollory" and the date of survey "11/01/41".

Form for Surveyor's Endorsement. The form is divided into several sections. The top section contains the ship's name "Empire Mollory", its home port "Glasgow", and its date of survey "1941". The middle section contains the ship's tonnage "11000" and the date of survey "11/01/41". The bottom section contains the ship's name "Empire Mollory" and the date of survey "11/01/41".



© 2020
Lloyd's Register
Foundation