

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

2nd 6014

Ship's Name "LIPARI" <i>now changed to</i> "EMPIRE GARSTON"	Official Number 180698	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 1943	Date of Build 1930	Port of Survey LIVERPOOL
Moulded Dimensions: Length 269.0 Breadth 42.6 Depth 19.0					Date of Survey 3.5.46 to 7.11.46 17th 18th Sept 1945
Moulded displacement at moulded draught = 85 per cent. of moulded depth.....tons					Surveyor's Signature D. E. Marshall
Coefficient of fineness for use with Tables..... .727 assumed					Particulars of Classification.....

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 19.0	(a) Where D is greater than Table depth (D-Table depth) R = ✓	Moulded Breadth (B) 42.6
Stringer plate04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{42.6 \times 12}{50} = 10.23$ inches
Sheathing on exposed deck ✓	(19.73 - 19.04) 2.277 = -1.57	Ship's Round of Beam = 12
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference 8.72
Depth for Freeboard (D) = 19.04		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{8.72^2}{4} \times \left(1 - \frac{12}{42.6} \right) = 10.23 - 2.23 = 8.00$

DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure 6.166
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	" " R.Q.D. ✓
Poop enclosed	21.0	21.00	7.6	✓	21.00	Deduction for complete superstructure 35.07
" overhang	✓		8.3			Percentage covered $\frac{S}{L} =$
R.Q.D. enclosed	✓					" " $\frac{S_1}{L} =$
Combined overhang 47'12"	✓					" " $\frac{E}{L} =$
Bridge enclosed	268.41	268.41	7.6	✓	268.41	Percentage from Table, Line A. ✓
" overhang aft	✓		8.3			(corrected for absence of forecastle (if required)) ✓
" overhang forward	✓					Percentage from Table, Line B. 97.27
F'cle enclosed	✓					(corrected for absence of forecastle (if required)) ✓
" overhang	✓					Interpolation for bridge less than 2L (if required) ✓
Trunk aft	✓					Deduction = 35.07 x .9727 = -34.11
" forward	✓					
Tonnage opening aft	✓					
" forward	✓					
Total	289.41	289.41			289.41	

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P.	39.60	1	39.60	4.16	39.60	1	39.60
1/2 L from A.P.	17.62	4	70.48	16.82	17.60	4	70.40
2/3 L "	4.36	2	8.72	1.92	4.36	2	8.72
Amidships	-	4	-	3.48	-	4	-
2/3 L from F.P.	8.71	2	17.42	24.24	8.71	2	17.42
1/2 L "	35.25	4	141.00	66.00	35.25	4	141.00
F.P.	79.20	1	79.20	5.5	79.20	1	79.20
Total			356.42				288.64
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{67.78}{18} \left(.75 - \frac{4889}{2611} \right) = +.98$							
If limited on account of midship superstructure. ✓							
Mean actual sheer aft = Excess							
Mean standard sheer aft = Deficient							
Mean actual sheer forward = Deficient							
Mean standard sheer forward = Excess							
Length of enclosed superstructure forward of amidships = > .16							
" " aft of " = > .16							

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 $\frac{727+.68}{1.36} \frac{1.407}{1.36}$
Depth to Freeboard Deck = 19.04	$\Delta =$	Depth Correction 1.57
Summer freeboard = .77	Tons per inch immersion at summer load water line	Deduction for superstructures 34.11
Moulded draught (d) = 18.27	T =	Sheer correction98
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction05
Winter freeboard = $\frac{d}{4}$ inches = 4.57 = 4 1/2	= 4 1/2	Correction for Thickness of Deck amidships -
Addition for Winter North Atlantic Freeboard (if required) = 6 1/2		Other corrections, scantlings, etc. -
		1.03 35.68 - 34.65
		Summer Freeboard = 9.25

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood Steel, Deck :-				
Tropical Fresh Water Line above Centre of Disc	2.2	9"	Tropical Fresh Water Freeboard	0'-9 1/4"
Fresh Water Line " "	1.1	4 1/2"	Fresh Water " "	0'-0 1/4"
Tropical Line " "	1.1	4 1/2"	Tropical " "	0'-4 3/4"
Winter Line below " "	1.1	4 1/2"	Winter " "	1'-1 3/4"
Winter North Atlantic Line " "	1.6	6 1/2"	Winter North Atlantic " "	1'-3 3/4"

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

General Cargo

Names of sister ships

GENUA

Builder's name and yard number

Flenstburg Schiffsb. Gm. Flenstburg

Owners

Ministry of War Transport Managers Moss Hutchinson Ltd.

Fee £



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Lloyd's Register
Foundation