

Rpt. C.11 (Comp.).
Empire Fmth 36543
Empire Fmd 36608

Lloyd's Register of Shipping.

Index. No. 36669
(For London Office only).

SURVEYS FOR FREEBOARD.

16 OCT 1941
Gns. Rpt. No. 21403

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name EMPIRE RIVER N.N. JEAN-MARC	Official Number 167109	Nationality and Port of Registry British Marshall	Gross Tonnage 320 320	Date of Build 1941	Port of Survey Gibraltar
Moulded Dimensions: Length 130.0 Breadth 24.5 Depth 9.66 <i>To centre of rubber stock, 130.35</i>					Date of Survey 12/6, 5/8 @ 7/10/41
Moulded displacement at moulded draught = 85 per cent. of moulded depth 538 tons 8.22					Surveyor's Signature H. Palmer
Coefficient of fineness for use with Tables .715					Particulars of Classification 100A1 (Contemplated)

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 9.66	(a) Where D is greater than Table depth $\frac{130}{15} = 8.66$ (D - Table depth) R = $(9.66 - 8.66) \frac{130}{120} = +1.01$	Moulded Breadth (B) 24.50
Stringer plate ... 103	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 70	Standard Round of Beam = $\frac{B \times 12}{50} = 5.88$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 7
Depth for Freeboard (D) = 9.66		Difference 1.12
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.12}{4} \times 0.6131 = -0.17$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed Equip.	38.18	38.18	6-8	✓	38.18
„ overhang ...					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed...					
„ overhang aft					
„ overhang forward					
Fore enclosed open	12.25	12.25	5-0	5.0/6.0	10.21
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ forward					
Total	50.43	50.43			48.39

Standard Height of Superstructure **6-0**
R.Q.D. **✓**
Deduction for complete superstructure **19.035**
Percentage covered $\frac{S}{L} = 38.69$
 $\frac{S_1}{L} = 38.69$
 $\frac{E}{L} = 37.12$
Percentage from Table, Line A. **21.05**
(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 = $19.035 \times 0.2105 = -4.01$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	23.00	4	1	23.00	24.00	14.00	1	4	4.00
$\frac{1}{8}L$ from A.P.	10.25	4	4	41.00	11.00	11.00	4	4	44.00
$\frac{2}{8}L$ „	2.53	2	5	10.66	3.00	3.00	2	6	12.00
Amidships		4					4		
$\frac{3}{8}L$ from F.P.	5.00	2	10	50.00	6.00	6.00	2	12	24.00
$\frac{4}{8}L$ „	10.50	4	81	81.00	22.00	22.00	4	88	352.00
F.P.	46.00	1	46	46.00	48.00	48.00	1	48	48.00
Total				107.66					221.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{14.64}{18} \left(\frac{75-1935}{5565} \right) = -0.45$
If limited on account of midship superstructure. **Yes, nie.** If limited to maximum allowance of $1\frac{1}{2}$ 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 594	Correction for coefficient 717+68 = 1.347/1.36
Depth to Freeboard Deck = 9.70	$\Delta =$	Depth Correction ... 1.01
Summer freeboard = .85	Tons per inch immersion at summer load water line 6.46	Deduction for superstructures ... 4.01
Moulded draught (d) = 8.85	Deduction = $\frac{\Delta}{40T}$ inches 2.30	Sheer correction17
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.21 = 2 1/4	= 2 1/4	Round of Beam correction ...
Addition for Winter North Atlantic Freeboard (if required) = 4 1/4		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = 10.22

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck			
Tropical Fresh Water Line above Centre of Disc	4 1/2"	114 mm	Tropical Fresh Water Freeboard
Fresh Water Line	2 1/4"	57 mm	Fresh Water
Tropical Line	2 1/4"	57 mm	Tropical
Winter Line below	2 1/4"	57 mm	Winter
Winter North Atlantic Line	4 1/2"	108 mm	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.

Deck equivalent length

39'-0" at centre

35'-6" at side

3'-6" diffn.

1'-4" = 2/3.

35'-6"

37'-10" = equivalent length to A.P.

37.83

.35

38.18 = equivalent length to centre of rudder stock

over

Trade of ship

Coasting

Names of sister ships

"EMPIRE FORD" (Guns 12pt No 21380)

Builder's name and yard number

Wm J. S. Watson (Gairneborough) Ltd. No 1521.

Owners

Ministry of War Transport (British Channel Islands Shipping Co. Ltd. London, W.C.C.)

Fee £ 6-0-0



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