

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

*Fresh water
37183.*

2645379

Ship's Name FRESHBURN,	Official Number 169811	Nationality and Port of Registry <i>British London</i>	Gross Tonnage 282.91	Date of Build 1944	Port of Survey <i>Lytham (Liverpool)</i>
Moulded Dimensions: Length 120.00' Breadth 24.50' Depth 12.50'					Date of Survey <i>Whilst building.</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 639.5 tons					Surveyor's Signature <i>Harry S. Newton</i>
Coefficient of fineness for use with Tables .717					Particulars of Classification <i>+100 A1. Fit Admiralty Tender Service</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 12.50	(a) Where D is greater than Table depth $(D - \text{Table depth}) R = (12.53 - 8.00) \times .923 = +4.18$ 4.53	Moulded Breadth (B) 24.50'
Stringer plate ... <i>.38"</i>03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{24.50 \times 12}{50} = 5.88$
Sheathing on exposed deck <i>1" clinker</i> $T \left(\frac{L-S}{L} \right) = \text{Composition}$ ✓	If restricted by superstructures	Ship's Round of Beam = 6"
Depth for Freeboard (D) = 12.53		Difference = .12
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.12}{4} \times .849 = -.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
.. overhang ...					
R.Q.D. enclosed ...					
.. overhang ...					
Bridge enclosed ...					
.. overhang aft ...					
.. overhang forward ...					
Fore enclosed ...	18.00	18.00	6.50		18.00
.. overhang25	.12			.12
Trunk aft ...					
.. forward ...					
Tonnage opening aft ...					
.. " forward ...					
Total ...	18.25	18.12			18.12

Standard Height of Superstructure **6.0'**
" " R.Q.D. ✓
Deduction for complete superstructure **18.0"**
Percentage covered $\frac{S}{L} = \frac{18.25}{120} = 15.21$
" " $\frac{S_1}{L} = \frac{18.12}{120} = 15.10$
Percentage from Table, Line A. **7.55**
(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 = $18 \times .0755 = -1.36$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	22.00	1		22.00	18.00	18.00	1		18.00
¼L from A.P. ...	9.79	4		39.16	9.00	9.00	4		36.00
½L ..	2.42	2		4.84	3.50	3.50	2		7.00
Amidships ...	-	4		-	-	-	4		-
¾L from F.P. ...	4.84	2		9.68	5.00	5.00	2		10.00
¾L ..	19.58	4		78.32	15.00	15.00	4		60.00
F.P. ...	44.00	1		44.00	36.00	36.00	1		36.00
Total ...				198.00					167.00

Mean actual sheer aft =
Mean standard sheer aft = } *Deficient*
Mean actual sheer forward =
Mean standard sheer forward = }
Length of enclosed superstructure forward of amidships = } *Nil.*
" " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{31.00}{18} \left(.75 - \frac{.0761}{.6739} \right) = +1.16$
If limited on account of midship superstructure. If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)	12.00
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.717 + .69}{1.36} = 1.397/1.36$	12.32
Depth to Freeboard Deck = 12.53	$\Delta = 595.626$	Depth Correction 4.18	
Summer freeboard = 1.35	Tons per inch immersion at summer load water line	Deduction for superstructures 1.36	
Moulded draught (d) = 11.18	$T = 3.87.95$	Sheer correction 1.16	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.80 = 2¾	Deduction = $\frac{\Delta}{40T}$ inches = 2.63 = 2¾	Round of Beam correction03	
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships -	
		Other corrections, scantlings, etc. -	
		5.34 1.39	+3.95
			Summer Freeboard = 16.27

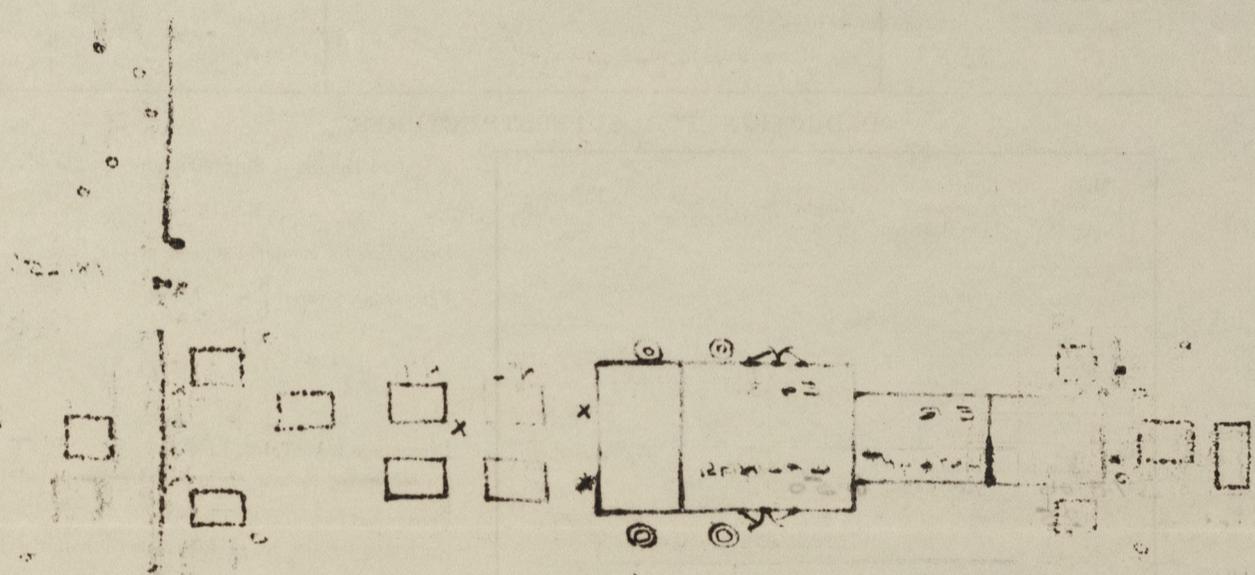
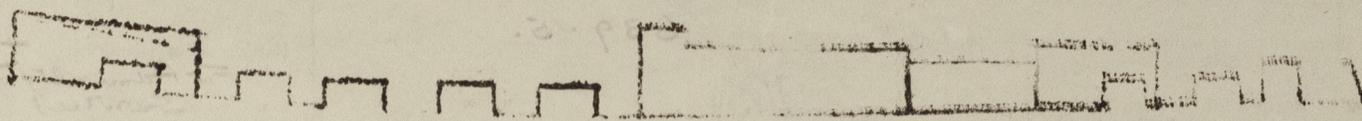
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck **1'-4¼"**

Tropical Fresh Water Line above Centre of Disc <i>Not assigned</i>	Tropical Fresh Water Freeboard 1'-1½"
Fresh Water Line " " <i>2¾</i>	Fresh Water " " 1'-3"
Tropical Line " " <i>Not assigned</i>	Tropical " " 1'-3"
Winter Line below " " <i>2¾</i>	Winter " " 1'-3"
Winter North Atlantic Line " " <i>Not assigned</i>	Winter North Atlantic " " 1'-3"

14 MAR 1944

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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.



© Lytham S. B. & E. Co. Ltd. No. 874

Trade of ship Water carrier for Admiralty Tender Services.

Names of sister ships Freshmere, Freshpool, Freshwell.

Builder's name and yard number Lytham S. B. & E. Co. Ltd. No. 874.

Owners The Admiralty.

Fee £ 6.0.0

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