

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

76d 6336

Ship's Name FRESH SRRAY.	Official Number 180895	Nationality and Port of Registry British LONDON	Gross Tonnage 283	Date of Build 1946.	Port of Survey Lytham
Moulded Dimensions: Length 120.00 Breadth 24.50 Depth 12.50					Date of Survey While building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 639.50 tons					Surveyor's Signature Harry S. Nestor + 100 A1
Coefficient of fineness for use with Tables .717					Particulars of Classification FOR ADMIRALTY TENDER SERVICE

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	12.50	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	24.5
Stringer plate .3803	(12.53 - 8.0) .923 = +4.18		Standard Round of Beam = $\frac{B \times 12}{50}$	= 5.88.
Sheathing on exposed deck	✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	4.53	Ship's Round of Beam	= 6.0
$T \left(\frac{L-S}{L} \right) = 1" \text{ durastec composite}$				Difference	.12
Depth for Freeboard (D) =	12.53	If restricted by superstructures	✓	Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$	= $\frac{.12^2}{4} \times .849 = .03"$

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				
F'cle enclosed	18.00	6.50	✓	18.00
„ overhang25	.125		
Trunk aft12
„ 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 $\frac{S}{L} = 15.21$
 $\frac{S_1}{L} = 15.1$
 $\frac{E}{L} = 7.55$
Percentage from Table, Line A. 7.55
(corrected for absence of fore-castle (if required))
Percentage from Table, Line B.
(corrected for absence of fore-castle (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
$\frac{1}{8}L$ from A.P.	9.79	4	39.16	9.00	9.00	4	36.00
$\frac{3}{8}L$ „	2.42	2	4.84	3.50	3.50	2	7.00
Amidships		4		✓		4	
$\frac{5}{8}L$ from F.P.	4.84	2	9.68	5.00	5.00	2	10.00
$\frac{7}{8}L$ „	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

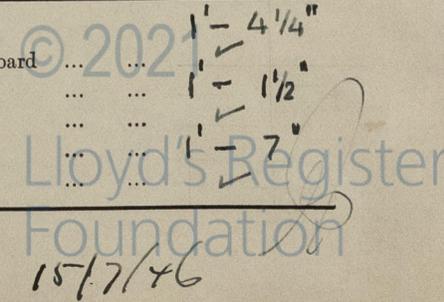
Mean actual sheer aft = } Deficient
Mean standard sheer aft = }
Mean actual sheer forward = }
Mean standard sheer forward = }
Length of enclosed superstructure forward of amidships = } Deficient
„ „ aft of „ = } Sheer.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{31.0}{18.0} (.75 - .0761) = +1.16$
If limited on account of midship superstructure. ✓
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)	12.00
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $.717 + .68 = 1.397$	12.32
Depth to Freeboard Deck = 12.53	$\Delta = 575 - 626$	1.36	
Summer freeboard = 1.35	Tons per inch immersion at summer load water line	+	
Moulded draught (d) = 11.18	$T = 5.87 - 95$	-	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	4.18	
Winter freeboard = $\frac{d}{4}$ inches = 2.8 = 2 3/4	= 2.63	- 1.36	
Addition for Winter North Atlantic Freeboard (if required) =	= 2 3/4"	1.16	
		- .03	
		-	
		-	
		5.34	
		1.39	
		+ 3.95	
		Summer Freeboard = 16.27	

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

Tropical Fresh Water Line above Centre of Disc	Not assigned	Tropical Fresh Water Freeboard	1' - 4 1/4"
Fresh Water Line	2 3/4"	Fresh Water	1' - 1 1/2"
Tropical Line	Not assigned	Tropical	1' - 7"
Winter Line below	2 3/4"	Winter	
Winter North Atlantic Line	Not assigned	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.

FRESH SPRAY
British
1946
15 20
24 20
69 20

Trade of ship *Water carrier for Admiralty Tender Services*
Names of sister ships *Freshpond, Freshwell, Freshwater, Freshmere*
Builder's name and yard number *Latham S. B. & Co Ltd No. 875*
Owners *The Admiralty.*
Fee £ *6 . 0 . 0*

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