

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name STAFFORDSHIRE	Official Number 161082	Nationality and Port of Registry BRITISH LIVERPOOL	Gross Tonnage	Date of Build 1929/1	Port of Survey _____
Moulded Dimensions: Length 482.00 ✓ Breadth 62.00 ✓ Depth 36.50 ✓					Date of Survey _____
Moulded displacement at moulded draught = 85 per cent. of moulded depth 19766 ✓ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables 746 ✓					Particulars of Classification + 100 A.1

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 36.50 ✓	(a) Where D is greater than Table depth (D - Table depth) R = (36.57 - 32.13) 3 = + 13.32 ✓	Moulded Breadth (B) 62.00 ✓
Stringer plate 04 ✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = _____	Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.88 ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \frac{2.5 \times 67.75}{482} =$ 03 ✓	If restricted by superstructures _____	Ship's Round of Beam = 9.00 ✓
Depth for Freeboard (D) = 36.57 ✓		Difference 5.88 ✓
		Restricted to _____
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{5.88}{4} \times 2956 =$ 43 ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	51.25	51.25	7.75	✓	51.25	Standard Height of Superstructure 7.5 ✓
" overhang						R.Q.D. _____
R.Q.D. enclosed						Deduction for complete superstructure 42.00 ✓
" overhang						Percentage covered $\frac{S}{L} =$ 70.64 ✓
Bridge enclosed	207.50	207.50	8.50	✓	207.50	$\frac{S_1}{L} =$ 70.44 ✓
" overhang aft	3.75	2.81			2.81	$\frac{E}{L} =$ _____
" overhang forward						Percentage from Table, Line A. _____ ✓
Fore enclosed	78.00	78.00	7.75		78.00	(corrected for absence of forecastle (if required)) _____ ✓
" overhang						Percentage from Table, Line B. 63.54 ✓
Trunk aft						(corrected for absence of forecastle (if required)) _____ ✓
" forward						Interpolation for bridge less than .2L (if required) _____ ✓
Tonnage opening aft						Deduction = 42.00 × 63.54 = - 26.69 ✓
" " forward						
Total	340.50	339.56			339.56	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	58.20	✓	1	58.20	36.00	36.00	✓	1	36.00	Mean actual sheer aft = _____
$\frac{1}{2}$ L from A.P.	25.90	✓	4	103.60	15.80	15.80	✓	4	63.20	Mean standard sheer aft = _____
$\frac{3}{4}$ L "	6.40	✓	2	12.80	3.95	3.95	✓	2	7.90	Mean actual sheer forward = _____
Amidships		✓	4				✓	4		Mean standard sheer forward = _____
$\frac{1}{2}$ L from F.P.	12.80	✓	2	25.60	10.86	10.86	✓	2	21.72	Length of enclosed superstructure forward of amidships = _____
$\frac{3}{4}$ L "	51.80	✓	4	207.20	43.45	43.45	✓	4	173.80	" " aft of " = _____
F.P.	116.40	✓	1	116.40	96.00	96.00	✓	1	96.00	
Total				523.80					398.62	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{125.18}{18} \left(\frac{.75 - .3532}{.3968} \right) =$ **+ 2.76** ✓

If limited on account of midship superstructure. _____

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 36.73 ✓	Summer freeboard = 7.77 ✓	Moulded draught (d) = 28.96 ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.24 ✓ $7\frac{1}{4}$ ✓		
Addition for Winter North Atlantic Freeboard (if required) = _____ ✓		

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta =$ 18352 ✓
Tons per inch immersion at summer load water line $T =$ 60.47 ✓
Deduction = $\frac{\Delta}{40 T}$ inches = 7.59 ✓
= 7½ ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-	
Depth Correction	13.32		
Deduction for superstructures		26.69	
Sheer correction	2.76		
Round of Beam correction $2\frac{1}{4}$ " No. 90	43		
Correction for Thickness of Deck amidships	1.89		
Other corrections, scantlings, etc.			
	18.40	26.69	
Summer Freeboard = 93.31 ✓			

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

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Tropical Fresh Water Line above Centre of Disc	14½ ✓
Fresh Water Line " "	7½ ✓
Tropical Line " "	7¼ ✓
Winter Line below " "	7¼ ✓
Winter North Atlantic Line " "	7¼ ✓

Tropical Fresh Water Freeboard	6' - 6½" ✓
Fresh Water " "	7' - 1¾" ✓
Tropical " "	7' - 2" ✓
Winter " "	8' - 2½" ✓
Winter North Atlantic " "	8' - 2½" ✓

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