

FEB 25 1938

35560

Index. No.
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **STRATHALLAN** Official Number **✓** Nationality and Port of Registry **British London** Gross Tonnage **about 23700** Date of Build **1938**

Port of Survey **Barrow**

Date of Survey **While Building**

Surveyor's Signature **T. Pratt**

Particulars of Classification **2100 A.1. with fhd. (Contemplated)**

Moulded Dimensions: Length **630** Breadth **82** Depth **38.04**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **31500** tons

Coefficient of fineness for use with Tables **.66 (.68 = lowest in tables)**

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 38.04	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) 82
Stringer plate04		Standard Round of Beam = $\frac{B \times 12}{50} = 19.68$
Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = (42-38.11)3 = 11.67	Ship's Round of Beam = none
$T \left(\frac{L-S}{L} \right) = 208 \left(\frac{630-543.2}{630} \right) = 28.03$	If restricted by superstructures	Difference 19.68
Depth for Freeboard (D) = 38.11	Mid. superstructures abaft amidships 3574	Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{19.68}{4} \left(1 - \frac{86.1}{630} \right) = 4.84$

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	540.0	540.0	9.5		540.0
„ overhang aft	2.25	2.4	9.5		2.4
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	543.2	542.4			542.4

Standard Height of Superstructure **7.5**

„ „ R.Q.D.

Deduction for complete superstructure **42.0**

Percentage covered $\frac{S}{L} = \frac{543.2}{630} = 86.22\%$

„ „ $\frac{S_1}{L} = \frac{542.4}{630} = 86.10\%$

„ „ $\frac{E}{L} = \frac{542.4}{630} = 86.10\%$

Percentage from Table, Line A. **= 82.86%**
(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 = **42 x 82.86% = 34.80**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	73.00	1		73.00	89.5	89.5	1		89.5
$\frac{1}{4}$ L from A.P.	32.485	4		129.94	42.0	42.0	4		168.0
$\frac{3}{4}$ L „	8.03	2		16.06	8.0	8.0	2		16.0
Amidships	-	4		-			4		
$\frac{3}{4}$ L from F.P.	16.06	2		32.12	24.0	24.0	2		48.0
$\frac{1}{4}$ L „	64.97	4		259.88	86.0	86.0	4		344.0
F.P.	146.00	1		146.00	161.5	161.5	1		161.5
Total				637.00					827.0

Mean actual sheer aft = **Excess**
Mean standard sheer aftMean actual sheer forward = **Excess**
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = **> .1L**
„ „ aft of „ = **> .1L = .357L**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{140}{18} \left(\frac{75 - \frac{543.2}{1260}}{2} \right) = 3.01$ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

If limited on account of midship superstructure.

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 nil	136.80
Depth to Freeboard Deck = 38.08	$\Delta = 28670$	Depth Correction	11.67
Summer freeboard = 8.08	Tons per inch immersion at summer load water line	Deduction for superstructures	34.80
Moulded draught (d) = 30.00	$T = 100$	Sheer correction	3.01
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.5	Deduction = $\frac{\Delta}{40T}$ inches = 7.18 = 7	Round of Beam correction68
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships36
		Other corrections, scantlings, etc.	9.36
		Scantlings & sub-division approved for 30'-0" draft	10.04
		Summer Freeboard = 97.00	39.80

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

Tropical Fresh Water Line above Centre of Disc	7"	Tropical Fresh Water Freeboard	6'-10"
Fresh Water Line	7"	Fresh Water	7'-6"
Tropical Line	7"	Tropical	7'-6"
Winter Line below	7"	Winter	8'-1"
Winter North Atlantic Line	7"	Winter North Atlantic	8'-1"

All Seasons load line of 8'-1" with F.W. allowance of 7"
assigned by Board of Trade

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 India & Australia via Suez Canal

Names of sister ships T.S.S. "STRATHEDEN"

Builder's name and yard number Messrs. Vickers Armstrong Ltd No 723

Owners Peninsular & Oriental Steam Navigation Co. Ltd.

Fee £ ✓ :



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Foundation