

10 NOV 1948

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

25429.

Ship's Name **"ST. ARVANS"** Official Number **169834** Nationality and Port of Registry **BRITISH** Gross Tonnage **7246.72** Date of Build **1944**

Port of Survey **Newport Mon**

Date of Survey **28 Nov. 1948**

Surveyor's Signature *[Signature]*

Particulars of Classification **100A**

Moulded Dimensions: Length **416' 11/2"** Breadth **56' 9"** Depth **37' 33"**
To centre of keel at stock.

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

Coefficient of fineness for use with Tables **.768**

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	37' 33"	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	56' 9"
Stringer plate	.06	(87' 39" - 21' 80") 3 = + 28' 77"		Standard Round of Beam = $\frac{B \times 12}{50}$	13' 66"
Sheathing on exposed deck	✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	14' 10"
$T \left(\frac{L-S}{L} \right) =$				Difference	14' 01"
Depth for Freeboard (D) =	37' 39"	If restricted by superstructures	✓	Restricted to	14' 01"
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$.53' = .09"

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					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total					

Standard Height of Superstructure **7' 30"**

" " R.Q.D. **✓**

Deduction for complete superstructure **42' 00"**

Percentage covered $\frac{S}{L} =$ **nil.**

" " $\frac{S_1}{L} =$ **nil.**

" " $\frac{E}{L} =$ **nil.**

Percentage from Table, Line A.
(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 = **nil.**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	51.70	1		51.70	58.50	58.50	1		58.50
1/8 L from A.P.	23.01	4		92.04	75.50	25.50	4		102.00
2/8 L	5.685	2		11.37	10.50	10.50	2		21.00
Amidships	✓	4		✓	✓	✓	4		✓
2/8 L from F.P.	11.375	2		22.75	15.00	15.00	2		30.00
1/8 L	46.01	4		184.04	49.00	49.00	4		196.00
F.P.	103.39	1		103.39	105.00	105.00	1		105.00
Total				465.29					512.50

Mean actual sheer aft = **Excess.**
Mean standard sheer aft = **Excess.**

Mean actual sheer forward = **Excess.**
Mean standard sheer forward = **Excess.**

Length of enclosed superstructure forward of amidships = **Flush deck.**
" " aft of " = **Flush deck.**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{47.21 \times .75}{18} = -1.97"$
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	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		corrected for Flush Deck (if required)	
Ft.		$\Delta =$		$\frac{76.83 + 6.25}{1.36} = 1.448/1.36$	
Depth to Freeboard Deck	37' 39"	Tons per inch immersion at summer load water line		Correction for coefficient	
Summer freeboard	9.73	T =		28.77	
Moulded draught (d)	27.66	Deduction = $\frac{\Delta}{40 T}$ inches		✓	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.92 = 7"		7 1/4"		Deduction for superstructures	
Addition for Winter North Atlantic Freeboard (if required) =				✓	
				Sheer correction	
				1.97	
				Round of Beam correction	
				.09	
				Correction for Thickness of Deck amidships	
				✓	
				Other corrections, scantlings, etc.	
				✓	
				28.77	
				2.06	
				+ 26.71'	
				Summer Freeboard = 115.17'	

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

Tropical Fresh Water Line above Centre of Disc	14 1/4"	Tropical Fresh Water Freeboard	8' 66"
Fresh Water Line	7 1/4"	Fresh Water	9' 13 1/4"
Tropical Line	7"	Tropical	9' 13 1/4"
Winter Line below	7"	Winter	10' 53 1/4"
Winter North Atlantic Line	✓	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.

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ :

1150



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Foundation