

4 DEC 1947

Index No. 39 385  
(For London Office only).

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER.)

Ship's Name ex S. S. "ARABIA" Official Number 1756 Nationality and Port of Registry MONROVIA Gross Tonnage 8717.74 Date of Build 1947

Port of Survey Sunderland

Date of Survey During Construction

Surveyor's Signature [Signature]

Particulars of Classification +100 A.I. (Contemplated)

Moulded Dimensions: Length 480.00' Breadth 63.75' Depth 34.84' to Upper Dk.

Moulded displacement at moulded draught = 85 per cent. of moulded depth 18617 @ 29' 7 1/4" tons

Coefficient of fineness for use with Tables .7192

Depth for Freeboard (D).			Depth correction.		Round of Beam correction.	
Moulded depth	...	34.84'	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	63.75'
Stringer plate	...	(.50")	(34.88 - 32.04) 3 = + 8.52"		Standard Round of Beam = $\frac{B \times 12}{50}$	15.3"
Sheathing on exposed deck	...		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	16.0"
$T \left( \frac{L-S}{L} \right) =$					Difference	.70"
Depth for Freeboard (D) =		34.88	If restricted by superstructures		Restricted to	
					Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	.70, 14.58 0.08

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	45.73	45.73	8.0'		45.73
.. overhang					
R.Q.D. enclosed					
.. overhang					
Bridge enclosed	171.96	171.96	8.5'		171.96
.. overhang aft	1.00	.75			.75
.. overhang forward					
Fore enclosed	48.06	48.06	8.0'		48.06
.. overhang	1.69	.84			.84
Trunk aft					
.. forward					
Tonnage opening aft					
.. forward					
Total	268.44	267.34			267.34

Standard Height of Superstructure 7.50

.. R.Q.D. 5

Deduction for complete superstructure 42.00

Percentage covered  $\frac{S}{L} = 83.85$

..  $\frac{S_1}{L} = 58.62$

..  $\frac{E}{L} =$

Percentage from Table, Line A. 5

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 41.62

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 42.00 x .4162 = -17.48

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	58.06	1		58.06	60.00	60.00	1		60.00
1/4 L from A.P.	25.84	4		103.36	26.66	26.66	4		106.64
3/4 L	6.38	2		12.76	6.66	6.66	2		13.32
Amidships		4			0.00		4		
3/4 L from F.P.	12.77	2		25.54	13.00	13.00	2		26.00
1/4 L	51.68	4		206.72	52.00	52.00	4		208.00
F.P.	116.12	1		116.12	129.00	129.00	1		129.00
Total				522.56					542.96

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{20.40}{18} \left( 75 - \frac{.2792}{.4708} \right) = -.5336$

If limited on account of midship superstructure.

Mean actual sheer aft = Zero.

Mean standard sheer aft

Mean actual sheer forward = Zero.

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = 7.1

.. aft of .. =

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck = 34.88

Summer freeboard = 7.46

Moulded draught (d) = 27.42

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.85 = 6 3/4.

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 17,166$  tons.

Tons per inch immersion at summer load water line

T = 59.25

Deduction =  $\frac{\Delta}{40T}$  inches = 7.24

= 7 1/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	8.52	
Deduction for superstructures		17.48
Sheer correction		.53
Round of Beam correction		.08
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	8.52	18.09

Summer Freeboard = 89.61

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

Tropical Fresh Water Line above Centre of Disc	14"
Fresh Water Line	7 1/4"
Tropical Line	6 3/4"
Winter Line below	6 3/4"
Winter North Atlantic Line	

Tropical Fresh Water Freeboard	6' 3 3/4"
Fresh Water	6' 10 1/4"
Tropical	6' 10 3/4"
Winter	8' 0 1/4"
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.

Displacement at 27'-7 1/2" extreme draught = 17,225 tons  
Tons per inch " " " " = 59.25

Poop: -

$$46.42 + .65 = 47.07$$

$$\text{Recus. } \frac{2.54 \times 15}{28.8} = \frac{1.34}{48.73}$$

Bridge: -

$$167.50$$

$$\text{Eqv. front. } + \frac{5.46}{172.96}$$

$$172.96$$

$$\text{Recus } 15.75 \times 15.75 = 59.17$$

$$3 \times 3 \div 2 = \frac{4.50}{63.67}$$

$$63.67$$

$$\div 63.75 = -1.00$$

Total incl. length. = 171.96.  
overhang aft 1.00'

Forecastle: -

$$49.75$$

$$4/10 = \frac{48.06}{1.69}$$

$$1.69$$

$$\div 2 = .84$$

$$48.06$$

$$48.90$$

Trade of ship

General & Part Refrigerated Cargoes

Names of sister ships

S.S. ASIA (Yard No 769)

Builder's name and yard number

Sir James Laing & Sons, Ltd., Sunderland. Yard No 774.

Owners

Cunard White Star, Ltd.

Fee £

(Will be charged on first entry)



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