

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name ARIMASAM MARU.	Official Number <u>42965</u>	Nationality and Port of Registry JAPAN Kobe	Gross Tonnage 8596.50	Date of Build 5.7.37	Port of Survey Tamano, Japan.
Moulded Dimensions: Length <u>451.25</u> ✓ Breadth <u>62.0</u> ✓ Depth <u>39.5</u> ✓ <i>To centre of Rudder Stock</i>					Date of Survey 15.1.50.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18973 Tons					Surveyor's Signature Glynn
Coefficient of fineness for use with Tables <u>709.707</u> ✓					Particulars of Classification 100 A-1 CONTINGENT

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 39.50	(a) Where D is greater than Table depth (D - Table depth) R = $(39.61 - 30.09)3 = +28.56"$ ✓	Moulded Breadth (B) 62.0 ✓
Stringer plate07	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 9.52 ✓	Standard Round of Beam = $\frac{B \times 12}{50} = +149"14.88"$
Sheathing on exposed deck (65 ^{mm}) $T \left(\frac{L-S}{L} \right) = \frac{2.50 \times 93.50}{12 \times 451.25} = .04$ ✓	If restricted by superstructures ✓	Ship's Round of Beam = 18" ✓
Depth for Freeboard (D) = 39.61 ✓		Difference = +3.12 ✓
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{3.12}{4} \times .9208 = -.72"$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure 7.50' ✓
.. overhang R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 42.00" ✓
.. overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed $\frac{S_1}{L} =$ } 7.92 ✓
.. overhang aft $\frac{E}{L} =$
.. overhang forward	32.75 ✓					Percentage from Table, Line A. 3.96 ✓
Fore enclosed	33 ✓	32.75	7.5'	✓	32.75	(corrected for absence of forecastle (if required))
.. overhang	3.0	3.00	7.5'	✓	3.00	Percentage from Table, Line B. ✓
Trunk aft	42.5		4.33			(corrected for absence of forecastle (if required)) ✓
.. forward	5.00		2.33			Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft						Deduction = 42.00 × .0396 = 1.66" ✓
.. .. forward						
Total	35.75	35.75			35.75	

SHEER CORRECTION.

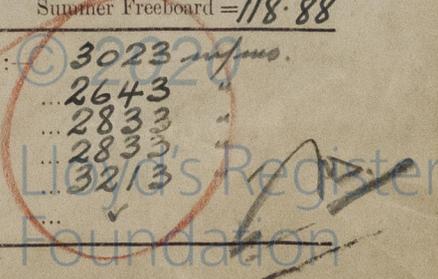
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product	
A.P.	55.125	1	55.13	58" ✓	58.00	1	58.00	Mean actual sheer aft = Excess ✓
1/4 L from A.P.	24.53	4	98.12	24.62	24.62	4	98.48	Mean actual sheer forward = Excess ✓
3/8 L	6.06	2	12.12	6.31	6.31	2	12.62	Mean standard sheer forward = Excess ✓
Amidships	-	4	-	0	-	4	-	Length of enclosed superstructure forward of amidships = } NIL. ✓
3/8 L from F.P.	12.13	2	24.26	12"	12.00	2	24.00 aft of .. = } NIL. ✓
1/4 L	49.06	4	196.24	48.87	48.87	4	195.48	
F.P.	110.25	1	110.25	113.87 ✓	113.87	1	113.87	
Total		✓	496.12				502.45 ✓	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{6.33(.75 - .0396)}{18} = -.25"$ ✓
If limited on account of midship superstructure. **Yes NIL.** ✓

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Top of wood on Deck = 39.78 Ft. Depth to Freeboard Deck = 39.78 Summer freeboard = 9.92 Moulded draught (d) = 29.86 ✓ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.47 = 7 1/2" Addition for Winter North Atlantic Freeboard (if required) = ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 16380$ Tons per inch immersion at summer load water line $T = 5430$ Deduction = $\frac{\Delta}{40T}$ inches = 7.54" = 7 1/2"	TABULAR FREEBOARD corrected for Flush Deck (if required) 88.90 ✓ Correction for coefficient $\frac{.707 + .68}{1.36} = \frac{1.387}{1.36}$ partial Depth Correction 28.56 ✓ Deduction for superstructures - 1.66 ✓ Sheer correction - Round of Beam correction Wood72 ✓ Correction for Thickness of Deck amidships 2.04 ✓ Other corrections, scantlings, etc. - ✓ 30.60 2.38 + 28.22 ✓ Summer Freeboard = 118.88
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Deck:

Tropical Fresh Water Line above Centre of Disc 380 <i>inches</i>	Tropical Fresh Water Freeboard ... 2643
Fresh Water Line " " 190 "	Fresh Water " " ... 2833
Tropical Line " " 190 "	Tropical " " ... 2833
Winter Line below " " 190 "	Winter " " ... 3213
Winter North Atlantic Line " " ✓	Winter North Atlantic " " ✓



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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.

Ship's name	Official Number, Tonnage and Port of Origin (under Table I)
Registered tonnage	Actual tonnage
Registered length	Actual length
Registered breadth	Actual breadth
Registered depth	Actual depth
Registered draught	Actual draught

Depth for Freeboard (D)	Modified depth
Depth for Freeboard (D)	Modified depth
Depth for Freeboard (D)	Modified depth
Depth for Freeboard (D)	Modified depth
Depth for Freeboard (D)	Modified depth

DEDUCTION FOR SUPERSTRUCTURES

Position	Height (ft)	Width (ft)	Area (sq ft)	Volume (cu ft)	Correction
Foremast					
Mainmast					
Mizzenmast					
Funnel					
Superstructure					
Other					
Total					

SHIP'S CORRECTION

Item	Correction
Foremast	
Mainmast	
Mizzenmast	
Funnel	
Superstructure	
Other	
Total	

Trade of ship	Builder's name and yard number
Names of sister ships	Owners
Fee £	