

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

15 APR 1950

Ship's Name SAMARANG MARU	Official Number	Nationality and Port of Registry JAPAN TOKYO	Gross Tonnage 4013	Date of Build 1920	Port of Survey OSAKA
Moulded Dimensions: Length 344'-3" ✓ Breadth 50'-0" ✓ Depth 29'-1" ✓					Date of Survey MARCH 1950
Moulded displacement at moulded draught = 85 per cent. of moulded depth 9025 tons					Surveyor's Signature <i>Reinhold Böhm</i> <i>for G.G. Lang, Secy.</i>
Coefficient of fineness for use with Tables .743					Particulars of Classification +100 A1

Depth for Freeboard (D). Moulded depth ... 29.08 Stringer plate ... 5/8"05 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NONE (SHEATHING NOW REMOVED) Depth for Freeboard (D) = 29.13 ✓	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = $(29.13 - 22.95) 2.648$ 6.18 (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures ✓	Round of Beam correction. Moulded Breadth (B) 50 ✓ Standard Round of Beam = $\frac{B \times 12}{50} =$ 12 ✓ Ship's Round of Beam = 12 1/2 ✓ Difference 0.5 Restricted to Correction = $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L}) =$ $\frac{0.5}{4} \times 5747 =$ -.07 ✓
--	---	---

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	40.00 33.00	33.00	7.75'		33.00
„ overhang ...					
R.Q.D. enclosed ...	74.11				
„ overhang ...	74.25 74.11	74.11	7.75'		74.11
Bridge enclosed ...	0.14	0.10			0.10
„ overhang aft ...	38.40	38.40	7.75'		38.40
F'cle enclosed ...	38.00 38.40	38.40	7.75'		38.40
„ overhang ...	1.60	.80			.80
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total ...	147.25	146.41			146.41

Standard Height of Superstructure	6.94 ✓
„ „ R.Q.D.	
Deduction for complete superstructure	38.29 ✓
Percentage covered $\frac{S}{L} =$	42.77
„ „ $\frac{S_1}{L} =$	42.53
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	29.65
Interpolation for bridge less than .2L (if required)	
Deduction =	38.29 x .2965 = 11.35 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	44.42	✓ 1	44.42	42.125	42.13	1	42.13
1/4 L from A.P. ...	19.765	4	79.06	15.375	15.375	4	61.50
1/2 L „ ...	4.885	2	9.77	1.625	1.625	2	3.25
Amidships ...		4		0		4	
3/4 L from F.P. ...	9.77	2	19.54	9.125	9.125	2	18.25
3/4 L „ ...	39.53	4	158.12	36.125	36.125	4	144.50
F.P. ...	88.85	1	88.85	83.625	83.63	1	83.63
Total ...			399.76				353.26

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{46.50}{18} \left(\frac{.75 - .2139}{2} \right) =$
 If limited on account of midship superstructure. **= +1.38** ✓ **.5361** ✓

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 29.13 ✓ Summer freeboard = 5.44 ✓ Moulded draught (d) = 23.69 ✓ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 5.92 = 6" ✓ Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 8797 Tons per inch immersion at summer load water line $T =$ 32.9 Deduction = $\frac{\Delta}{40T}$ inches = 6.68 ✓ = 6 3/4 ✓	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.743 \times .68}{1.36} =$ 1.423 ✓ <table style="width: 100%;"> <tr> <th></th><th>+</th><th>-</th></tr> <tr> <td>Depth Correction ...</td><td>16.36</td><td></td></tr> <tr> <td>Deduction for superstructures ...</td><td></td><td>11.35</td></tr> <tr> <td>Sheer correction ...</td><td>1.38</td><td></td></tr> <tr> <td>Round of Beam correction ...</td><td></td><td>.07</td></tr> <tr> <td>Correction for Thickness of Deck amidships ...</td><td></td><td></td></tr> <tr> <td>Other corrections, scantlings, etc. ...</td><td></td><td></td></tr> <tr> <td>17.74</td><td>11.42</td><td>+ 6.32</td></tr> <tr> <td colspan="3">Summer Freeboard = 63.75 ✓</td></tr> </table>		+	-	Depth Correction ...	16.36		Deduction for superstructures ...		11.35	Sheer correction ...	1.38		Round of Beam correction07	Correction for Thickness of Deck amidships ...			Other corrections, scantlings, etc. ...			17.74	11.42	+ 6.32	Summer Freeboard = 63.75 ✓		
	+	-																											
Depth Correction ...	16.36																												
Deduction for superstructures ...		11.35																											
Sheer correction ...	1.38																												
Round of Beam correction07																											
Correction for Thickness of Deck amidships ...																													
Other corrections, scantlings, etc. ...																													
17.74	11.42	+ 6.32																											
Summer Freeboard = 63.75 ✓																													

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

(1906 Freeboards re-assigned) Tropical Fresh Water Line above Centre of Disc 11" ... Fresh Water Line „ „ 6" ... Tropical Line „ „ 5" ... Winter Line below „ „ 5 1/2" ... Winter North Atlantic Line „ „ ✓ ...	Tropical Fresh Water Freeboard ... 5' - 2 3/4" Fresh Water „ „ 4' - 3 3/4" Tropical „ „ 4' - 8 3/4" Winter „ „ 4' - 9 3/4" Winter North Atlantic „ „ 5' - 8 3/4" Winter North Atlantic „ „ ✓ ...
--	--

Samarang Maru.

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.

$$\text{Length of Forecastle} = 40.00$$

$$\text{Less } \left(\frac{6.75 \times 3.5}{34.50} + \frac{9.0 \times 3.5}{34.50} \right) = \frac{1.60}{38.40} = \text{O/H.} \quad \checkmark$$

$$= \text{Equiv. Bhd.} \quad \checkmark$$

$$\text{Length of Bridge} = 74.25$$

$$\text{Less } \frac{3.5 \times 1.0 \times 2}{50} = \frac{.14}{74.11} = \text{O/H.} \quad \checkmark$$

$$= \text{Equiv. length.} \quad \checkmark$$

[Handwritten signature]

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



© 2020

Lloyd's Register Foundation