

26 OCT 1950

Rpt. C. 11 (Comp.).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 42552
(For London Office only).

Ship's Name AZUMASAN MARU	Official Number	Nationality and Port of Registry JAPAN Tokyo	Gross Tonnage	Date of Build 12.1950	Port of Survey TAMANO
Moulded Dimensions: Length 128.320 Breadth 18.00 Depth 11.00 <i>To centre of Rudder Stock.</i>					Date of Survey WHILST BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 16.410 K. tons					Surveyor's Signature <i>Glynn</i>
Coefficient of fineness for use with Tables 743.741					Particulars of Classification +100A.1.

Depth for Freeboard (D). Moulded depth ... 11.000 Stringer plate ... 0.020 Sheathing on exposed deck 65% $T \left(\frac{L-S}{L} \right) = 65 \times \frac{24.000}{128.320} = 12.5$ Depth for Freeboard (D) = 11.032	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R = 8.33(11.032 - 8.565) 30 = + 619 \text{ mms}$ 2.477 (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) 18.000 Standard Round of Beam = $\frac{B \times 43}{50} = 360$ Ship's Round of Beam = 360 Difference NIL Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{NIL}$
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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 ...					
F'dle enclosed ...	24.440	24.440	2.400	✓	24.440
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	24.440	24.440			24.440

Standard Height of Superstructure **2.290**
 „ „ R.Q.D. **✓**
 Deduction for complete superstructure **1067**
 Percentage covered $\frac{S}{L} =$
 $\frac{S_1}{L} = 19.05$
 $\frac{E}{L} =$
 Percentage from Table, Line A. **9.53**
 (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 = **1067 x 0.953 = 102 mms**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	1323	1	1323	1392	1392	1	1392		
$\frac{1}{2}L$ from A.P. ...	588	4	2352	641	641	4	2564		
$\frac{3}{4}L$ „ ...	147	2	294	168	168	2	336		
Amidships ...	—	4	—	0	—	4	—		
$\frac{3}{4}L$ from F.P. ...	294	2	588	311	311	2	622		
$\frac{1}{2}L$ „ ...	1176	4	4704	1260	1260	4	5040		
F.P. ...	2646	1	2646	2826	2826	1	2826		
Total ...			11907				12780		

Mean actual sheer aft =
 Mean standard sheer aft = } **Excess**
 Mean actual sheer forward =
 Mean standard sheer forward = }
 Length of enclosed superstructure forward of amidships =
 „ „ aft of „ = } **NIL**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{873}{18} \left(\frac{.75 - .0952}{1} \right) = -32 \text{ mms}$
 If limited on account of midship superstructure. **NIL** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **11.085**
 Summer freeboard = **3.285**
 Moulded draught (d) = **7.800**
 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \text{ inches} = 162 \text{ mms}$
 Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 13.300 \text{ K. Tons}$
 Tons per inch immersion at summer load water line
 $T = 19.85 \text{ T/cm}$
 Deduction = $\frac{\Delta}{40T} \text{ inches} = 168 \text{ mms}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.741 + .68}{1.36} = \frac{1.421}{1.36}$

	+	-
Depth Correction ...	619	—
Deduction for superstructures ...	—	102
Sheer correction ...	—	—
Round of Beam correction ...	—	—
Correction for Thickness of Deck amidships ...	53	—
Other corrections, scantlings, etc. corresponding to a summer moulded draught of 25.59' (7.800 metres)	644	—
Summer Freeboard =	1316	102

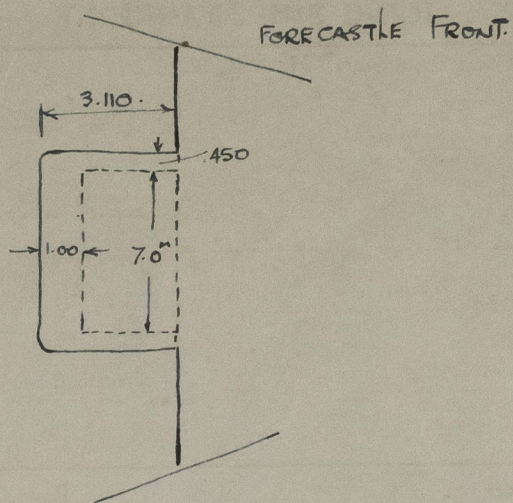
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	330 mms	Tropical Fresh Water Freeboard	2955
Fresh Water Line	168	Fresh Water	3117
Tropical Line	162	Tropical	3123
Winter Line below	162	Winter	3447
Winter North Atlantic Line	✓	Winter North Atlantic	✓

Azumasan 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.



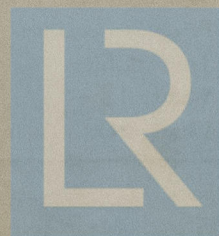
Trade of ship..... CARGO VESSEL.

Names of sister ships.....

Builder's name and yard number..... MITSUBI S.B. & ENG. CO. TAMANO JAPAN. N° 556.

Owners..... MITSUBI SHIPPING CO. LTD.

10/1 Fee £.....



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