

9 FEB 1951

Index. No. 42706
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name BUNYO MARU	Official Number 62884	Nationality and Port of Registry JAPAN Tokyo	Gross Tonnage 3769.48	Date of Build LAUNCH JUN. 1949 COMPLETED AUG. 1949	Port of Survey SHIMONOSEKI
Moulded Dimensions: Length 106.24 Breadth 15.50 Depth 8.40					Date of Survey AUGUST 1950
Moulded displacement at moulded draught=85 per cent. of moulded depth 8292 tons					Surveyor's Signature <i>Refined</i>
Coefficient of fineness for use with Tables 70.699					Particulars of Classification 100 A.1 CONTEMPLATED.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 8.400	(a) Where D is greater than Table depth (D-Table depth) R = 8.33(8.40-7.082) 26.83 = + 297 -/-	Moulded Breadth (B) 15.50
Stringer plate 0.010	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 1.327	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{310 -/-}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 310 1/2
Depth for Freeboard (D) = 8.410		Difference NIL
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \mathbf{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	6.636	6.636	2.300	-	6.636
" overhang					
R.Q.D. enclosed					
" overhang	49.908	49.908	2.450		49.908
Bridge enclosed	49.600	49.600	2.450		49.600
" overhang aft	8.000	8.000	2.450		8.000
" overhang forward	49.2	49.2	2.450		49.2
Fore enclosed	8.600	8.600	2.300		8.600
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	65.636	65.513			65.513

Standard Height of Superstructure **2131**
1620 -/-

" " R.Q.D. **-**

Deduction for complete superstructure **980 -/-**

Percentage covered $\frac{S}{L} = \mathbf{61.78}$

" " $\frac{S_1}{L} = \mathbf{61.67}$

Percentage from Table, Line A. **48.84**
(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 = **980 × 48.84 = -479 -/-**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	1139	1	1139	1140	1140	1	1140	1140	1140
$\frac{1}{2}$ L from A.P.	506	4	2024	507	507	4	2028	2028	2028
$\frac{2}{2}$ L "	126	2	252	125	125	2	250	250	250
Amidships	-	4	-	0	0	4	-	-	-
$\frac{2}{2}$ L from F.P.	253	2	506	251	251	2	502	502	502
$\frac{1}{2}$ L "	1012	4	4048	1014	1014	4	4056	4056	4056
F.P.	2278	1	2278	2279	2279	1	2279	2279	2279
Total			10247				10255		10255

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{8(75-3089)}{18} = \mathbf{NIL}$

If limited on account of midship superstructure. **✓**

Mean actual sheer aft = **Standard**

Mean standard sheer aft = **Standard**

Mean actual sheer forward = **Standard**

Mean standard sheer forward = **Standard**

Length of enclosed superstructure forward of amidships = **Standard**

" " aft of " = **Standard**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient 68+699 / 1.36 = 1379 / 1.36
Depth to Freeboard Deck = 8410	$\Delta = \mathbf{8292 \text{ Tons.}}$	Depth Correction 297
Summer freeboard = 1265	Tons per inch immersion at summer load water line	Deduction for superstructures 479
Moulded draught (d) = 7145	$T = \mathbf{34.17 \text{ TONS/INCH.}}$	Sheer correction -
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T} = \mathbf{6.07 \text{ INCH.}}$	Round of Beam correction -
Winter freeboard = $\frac{d}{48} = \mathbf{149 -/-}$	154 -/-	Correction for Thickness of Deck amidships -
Addition for Winter North Atlantic Freeboard (if required) = ✓		Other corrections, scantlings, etc. -
		Summer Freeboard = 1262

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

Tropical Fresh Water Line above Centre of Disc	303 -/-	Tropical Fresh Water Freeboard	962 -/-
Fresh Water Line " "	154 -/-	Fresh Water " "	1111 -/-
Tropical Line " "	149 -/-	Tropical " "	1116 -/-
Winter Line below " "	149 -/-	Winter " "	1414 -/-
Winter North Atlantic Line " "	-	Winter North Atlantic " "	-

as previously assigned by the Japanese Government

Bunyo 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.

$$\begin{array}{r} \text{Length of bridge at side} = 49.600 \\ + 2.819 \times .800 \\ \hline 7.315 \\ \hline 49.908 \end{array} \checkmark \text{ Equip Encl.}$$

$$\begin{array}{r} 3/4 \text{ of } .800 \\ - .308 \\ \hline .492 \end{array} \checkmark$$

Trade of ship..... INTERNATIONAL

Names of sister ships..... /

Builder's name and yard number KAWAMINAMI S B Co

Owners..... TOKYO KISEN K.K.

Fee £..... :

[Signature]



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