

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name SHINWA MARU	Official Number	Nationality and Port of Registry JAPANESE TOKYO	Gross Tonnage	Date of Build	Port of Survey _____
Moulded Dimensions: Length 82.300 M Breadth 12.200 M Depth 6.200 M					Date of Survey 17.10.50.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4025 METRIC tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables .742					Particulars of Classification _____

DEPTH FOR FREEBOARD (D).

Moulded depth	6.200
Stringer plate	15
Sheathing on exposed deck	
$T \left(\frac{L-S}{L} \right) =$	
Depth for Freeboard (D) =	6.215

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D-Table depth) R = **+126 inches**

(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)	
Standard Round of Beam = $\frac{B \times 12}{50} =$	
Ship's Round of Beam	
Difference	
Restricted to	
Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right) =$	-1 inch

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'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	35.330	35330			35330

Standard Height of Superstructure	1.891
" " R.Q.D.	✓
Deduction for complete superstructure	839
Percentage covered $\frac{S}{L} =$	42.93
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	
Percentage from Table, Line A TIMBER	64.83 ✓
(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 =	839 x .6483 = 544 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{4}L$ from A.P.		4				4	
$\frac{2}{6}L$ "		2				2	
Amidships		4				4	
$\frac{2}{6}L$ from F.P.		2				2	
$\frac{1}{4}L$ "		4				4	
F.P.		1				1	
Total			8457				8750

Mean actual sheer aft	Excess.
Mean standard sheer aft =	
Mean actual sheer forward	NIL.
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	NIL.
" " aft of "	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) =$ **-9 inches**

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

TIMBER

Depth to Freeboard Deck	= 6.215
Summer freeboard	= 552
Moulded draught (d)	= 5.663
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d \text{ inches}}{48} =$	118 inches ✓
Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{36} =$	157 inches ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line	$\Delta =$
Tons per inch immersion at summer load water line	T =
Deduction = $\frac{\Delta}{40 T}$ inches	= 120 inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{.742 + .68}{1.36} = \frac{1.422}{1.36}$
Depth Correction	126
Deduction for superstructures	544
Sheer correction	1
Round of Beam correction	-
Correction for Thickness of Deck amidships	-
Other corrections, scantlings, etc.	-
Summer Freeboard =	552

929 ✓
971 ✓
20.10.50

TIMBER SUMMER FREEBOARD amidships from ~~Centre of Disc~~ top of Deck Line, ~~Wood~~ Steel, Deck :-

TIMBER Tropical Fresh Water Line above Centre of Disc	564 inches	Tropical Fresh Water Freeboard	314
" Fresh Water Line	446	Fresh Water	432
" Tropical Line	444	Tropical	432
" Winter Line <i>below above</i>	169	Winter	709
" Winter North Atlantic Line <i>BELOW</i>	162	Winter North Atlantic	1040
" SUMMER LINE ABOVE	326		

552 inches
2021
Lloyd's Register Foundation