

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>6.200</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>+126 mms</b>	Moulded Breadth (B) =
Stringer plate ... .. <b>15</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = <b>6215</b>		Difference =
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>-1 mms.</b>

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	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 ... ..	<b>35.330</b>	<b>35330</b>			<b>35330</b>

Standard Height of Superstructure **1.891**

" " R.Q.D. **✓**

Deduction for complete superstructure **839**

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

" "  $\frac{S_1}{L} =$  **42.93**

" "  $\frac{E}{L} =$

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	
$\frac{2}{4}L$ " ... ..		2				2	
Amidships ... ..		4				4	
$\frac{2}{4}L$ from F.P. ... ..		2				2	
$\frac{1}{4}L$ " ... ..		4				4	
F.P. ... ..		1				1	
Total ... ..			<b>8457</b>				<b>8750</b>

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

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

Mean actual sheer aft =

Mean standard sheer aft = **Excess.**

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **NIL.**

" " aft of " =

### Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **6215**

**TIMBER** Summer freeboard = **552**

Moulded draught (d) = **5663**

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{48} \text{ inches} =$  **118 mms** ✓

Addition for Winter North Atlantic Freeboard (if required) =  $\frac{d}{36} =$  **157 mms** ✓

### 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 mms.**

### 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. ... ..

+	-
126	
	544
	1
126	545

Summer Freeboard = **552** ✓

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

**27.10.1950** **TIMBER**

Tropical Fresh Water Line above Centre of Disc **564 mms**

" Fresh Water Line " **446**

" Tropical Line " **444**

" Winter Line **below above** **169**

" Winter North Atlantic Line **BELOW** **162**

**SUMMER LINE ABOVE** **326** ✓

Tropical Fresh Water Freeboard **314**

Fresh Water **432**

Tropical **434**

Winter **709**

Winter North Atlantic **1040**