

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>TAIEI MARU</b> (Harima No. 467)	Official Number	Nationality and Port of Registry Japan Tokyo	Gross Tonnage Approx. 19000	Date of Build 1952 2	Port of Survey <b>Aioi Japan</b>
Moulded Dimensions: Length <b>163.380</b> Breadth <b>21.400</b> Depth <b>11.800</b>					Date of Survey <b>Whilst Building</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>27.550</b> tons					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables <b>767.766</b>					Particulars of Classification <b>+ 100A1 "Carrying Petroleum in Bulk" (contemplated)</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. 11.800	(a) Where D is greater than Table depth (D - Table depth) R = <b>8.33 (11.825 - 10.892) 30 = + 233 -/-</b>	Moulded Breadth (B) <b>21.400</b>
Stringer plate ... .. .025	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>933</b>	Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>428</b>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <b>X</b>	Ship's Round of Beam = <b>.430</b>
Depth for Freeboard (D) = <b>11.825</b>		Difference <b>2</b>
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{2}{4} \times 5647 = \text{N.L.}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>Equi.</i> ...	37.040	37.040	2.350		37.040	Standard Height of Superstructure <b>2290 -/-</b>
" overhang ...						" " R.Q.D. <b>-</b>
R.Q.D. enclosed ...						Deduction for complete superstructure <b>1067 -/-</b>
" overhang ...						Percentage covered $\frac{S}{L} =$
Bridge enclosed <i>Equi.</i> ...	14.542	14.542	2.300		14.542	" " $\frac{S_1}{L} =$ <b>43.53</b>
" overhang aft ...						" " $\frac{E}{L} =$
" overhang forward ...						Percentage from Table, Line <b>+ TANKER</b> <b>34.53</b>
Fore enclosed ...	19.535	19.535	2.300		19.535	(corrected for absence of forecastle (if required)) <b>-</b>
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required)) <b>-</b>
" forward ...						Interpolation for bridge less than .2L (if required) <b>-</b>
Tonnage opening aft ...						Deduction = <b>1067 x .3453 = -368 -/-</b>
" " forward ...						
Total ...	71.117	71.117			71.117	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	1615	1	1615	1.559	1559	1	1559		
$\frac{1}{8}L$ from A.P. ...	718	4	2872	.388	388	4	1552		
$\frac{1}{4}L$ " ...	179	2	358	0	0	2	0		
Amidships ...	-	4	-	0	-	4	-		
$\frac{3}{8}L$ from F.P. ...	358	2	716	0	0	2	0		
$\frac{1}{2}L$ " ...	1437	4	5748	.572	572	4	2288		
F.P. ...	3230	1	3230	3.000	3000	1	3000		
Total ...			14539				8399		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{6140 (75 - 2177)}{18} = + 182 -/-$

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

Mean actual sheer aft = **Defunct**

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

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

" " aft of " =

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **11.825**

Summer freeboard = **2.631**

Moulded draught (d) = **9.194**

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{48} =$  **192 -/-**Addition for Winter North Atlantic Freeboard (if required) = **192 + 134 = 326 -/-**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 25130 \text{ K.Tm.}$ 

Tons per inch immersion at summer load water line

 $T = 30.28 \text{ T/in.}$ Deduction =  $\frac{\Delta}{40T}$  inches**208 -/-**

## TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient  $\frac{766 + 68}{136} = 1.446 / 1.36$ 

Depth Correction ... .. **233**

Deduction for superstructures ... .. **368**

Sheer correction ... .. **182**

Round of Beam correction ... .. **-**

Correction for Thickness of Deck amidships ... .. **-**

Other corrections, scantlings, etc. ... .. **-**

**2430**

**2584**

	+	-
Depth Correction	233	-
Deduction for superstructures	-	368
Sheer correction	182	-
Round of Beam correction	-	-
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
<b>415</b>	<b>368</b>	<b>+ 47</b>

Summer Freeboard = **2631**

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

Tropical Fresh Water Line above Centre of Disc **400 -/-**

Fresh Water Line " " **208 -/-**

Tropical Line " " **192 -/-**

Winter Line below " " **192 -/-**

Winter North Atlantic Line " " **326 -/-**

Tropical Fresh Water Freeboard **2631 -/-**

Fresh Water " **2423 -/-**

Tropical " **2439 -/-**

Winter " **2823 -/-**

Winter North Atlantic " **2957 -/-**



Taipei 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.

Perp at side = 35.520 ✓  
+  $\frac{2}{3} \times 2280$  = 1.520 ✓  
37.040 ✓

Bridge at side = 12.920 ✓  
+  $\frac{2}{3} \times 3040$  = 2.027 ✓  
14.947  $\times \frac{20820}{21400}$  = 14.542 ✓

Trade of ship ..... International .....

Names of sister ships ..... NISSYO MARU. TERUKUNI MARU - Same Hull - Superstructures different .....

Builder's name and yard number ..... Harima S.B. Co., Aioi Japan. No. 467. ....

Owners ..... Kyoei Tanker Co., Ltd. Iki Kaisha. ....

Fee £.....

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