

DISCLOSED SECTION

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. *J 66*
(For London Office only.)

332

 Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ *Motor Ship*.
 having *Complete superstructure with a tonnage opening.*
Port of Survey *Harima, Oh.*Date of Survey *14 Feb. 1935*Name of Surveyor *T. Kishigami*Particulars of Classification *+100A1 with freeboard.*

(Type of Superstructures.)

Ship's Name

KONGO MARU

Nationality and Port of Registry

Japan.

Official Number

Gross Tonnage

Date of Build

*1935*Moulded Dimensions: Length *450'-0"* Breadth *61'-0"* Depth *31'-0"*Moulded displacement at moulded draught = 85 per cent. of moulded depth *14300 tons*Coefficient of fineness for use with Tables *.692*

Depth for Freeboard (D)

Moulded depth ... *31.00* ✓Stringer plate ... *0.45* ✓

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) = 0$$

Depth for Freeboard (D) = *31.04* ✓

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R =

$$(31.04 - 30.00) \times 3 = 3.12$$

(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) *61* ✓

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 14.64$$

Ship's Round of Beam = *15* ✓Difference = *.36* ✓

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.36}{4} \times .0047 = .00047$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>24'-6"</i>	<i>24.50</i> ✓	<i>9'-0"</i>	-	<i>24.50</i> ✓
" overhang ...	<i>3"</i>	<i>.12</i> ✓	"	-	<i>.12</i> ✓
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed ...	<i>42'-0"</i>	<i>42.00</i> ✓	<i>9'-0"</i>	-	<i>42.00</i> ✓
" overhang ...	<i>3"</i> ✓	<i>.19</i> ✓	"	-	<i>.19</i> ✓
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<i>4'-0"</i>	<i>2.09</i> ✓	<i>9'-0"</i>	-	<i>2.09</i> ✓
" forward ...					
Total ...	<i>450.0</i>	<i>447.90</i>			<i>447.90</i>

Standard Height of Superstructure *7.5* ✓

" " R.Q.D. ✓

Deduction for complete superstructure *42* ✓Percentage covered $\frac{S}{L} = 100.00$ ✓" " $\frac{S_1}{L} = 99.53$ ✓" " $\frac{E}{L} = 99.53$ ✓Percentage from Table, Line A. *99.42* ✓

(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 = *42 × 99.42 = -41.75* ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>55.00</i>	1		<i>55.00</i>	<i>60</i>	<i>78.00</i>	1		<i>78.00</i>
$\frac{1}{4}$ L from A.P. ...	<i>24.475</i>	4		<i>97.90</i>	<i>25</i>	<i>34.70</i>	4		<i>138.80</i>
$\frac{2}{4}$ L " ...	<i>6.05</i>	2		<i>12.10</i>	<i>4</i>	<i>8.58</i>	2		<i>17.16</i>
Amidships ...	-	4		-	<i>0</i>	-	4		-
$\frac{3}{4}$ L from F.P. ...	<i>12.10</i>	2		<i>24.20</i>	<i>9</i>	<i>13.20</i>	2		<i>26.40</i>
$\frac{1}{4}$ L " ...	<i>48.95</i>	4		<i>195.80</i>	<i>40.5</i>	<i>53.40</i>	4		<i>213.60</i>
F.P. ...	<i>110.00</i>	1		<i>110.00</i>	<i>102</i>	<i>120.00</i>	1		<i>120.00</i>
Total ...	<i>495</i>			<i>495.00</i>	<i>+18</i>				<i>593.96</i>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{98.96}{18} \left(.75 - .50 \right) = -1.37$$

If limited on account of midship superstructure.

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 = *31.04*Summer freeboard = *3.99*Moulded draught (d) = *27.05*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

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 = $\frac{\Delta}{40T}$ inches

=

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{692 + 68}{1.36} = \frac{1.372}{1.36} = 1$$

	+	-
Depth Correction ...	<i>3.12</i>	-
Deduction for superstructures ...	-	<i>41.75</i>
Sheer correction ...	-	<i>1.37</i>
Round of Beam correction ...	-	-
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	<i>3.12</i>	<i>43.12</i>

Summer Freeboard = *47.87 = 12.16*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck:—Tropical Fresh Water Line above Centre of Disc ... *353*Fresh Water Line " " ... *180*Tropical Line " " ... *173*Winter Line below " " ... *173*

Winter North Atlantic Line " " ... ✓

Tropical Fresh Water Freeboard ... *819*Fresh Water " " ... *992*Tropical " " ... *999*Winter " " ... *1345*

Winter North Atlantic " " ... ✓

Freeboard as assigned by Japanese authorities

Particulars of Scuppers and Sanitary Discharge Pipes —

Particulars of Side Scuttles :

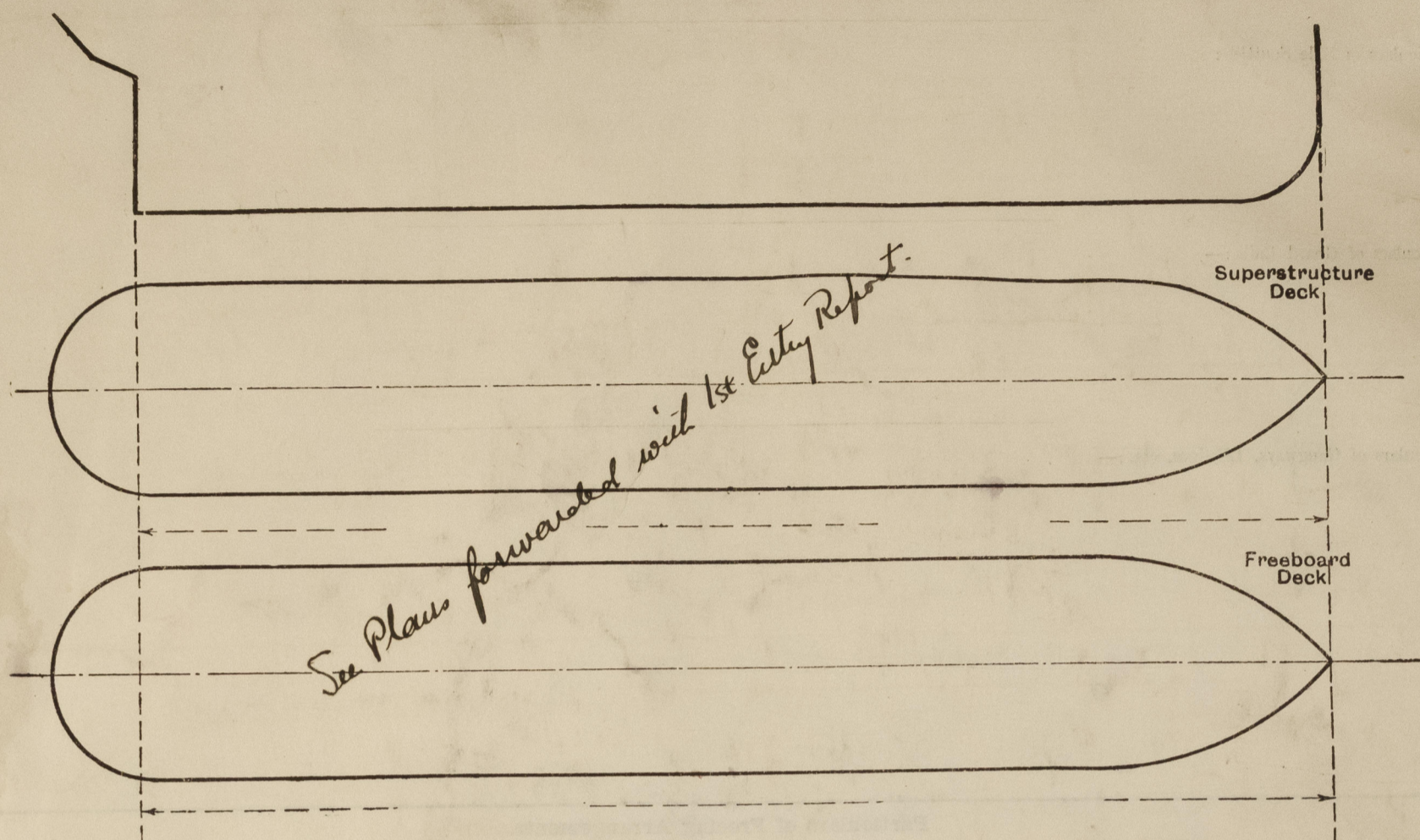
Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well						
Forward Well						
State position of each freeing port } After Well :— (F ₂ and A. position and height above deck edge) } Forward Well :— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poop Bulkhead	double storm board .							
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	double storm board .							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors. (operable from both sides)							
Deckhouses on Flush Deck Ships ...								

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

Freeboards have been assigned by the Japanese Government:
for particulars see Verification form herewith.

Builder's name and yard number Harima Shipbuilding & Engineering Company. No 205.

Names of sister ships Similar to Kijomaru Maru (Kaw 583) & Konaki Maru (Harima 189)

Owners Kokusai Kisen Kaisha.

Fee £ : :

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