

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

13 SEP 1951

Ship's Name <b>KENRYU MARU</b> (FUTINAGATA S.N. 25)	Official Number <b>67584</b>	Nationality and Port of Registry <b>JAPAN</b> <b>KOBE</b>	Gross Tonnage <b>1951</b>	Date of Build <b>1951</b>	Port of Survey <b>OSAKA</b>
Moulded Dimensions: Length <b>115.000</b> ✓ Breadth <b>16.500</b> ✓ Depth <b>9.016</b> ✓					Date of Survey <b>AUG. 1951</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>10,980</b> K. tons					Surveyor's Signature <i>Refined Abin</i>
Coefficient of fineness for use with Tables <b>0.737</b> ✓					Particulars of Classification <b>100A1</b> <b>CONTEMPLATED</b>

<b>Depth for Freeboard (D).</b> Moulded depth ... <b>9.016</b> Stringer plate ... <b>0.016</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>9.032</b> ✓	<b>Depth correction.</b> (a) Where D is greater than Table depth (D—Table depth) R = <b>8.32(9.032 - 7.667) 29.04 = +330 m/m.</b> (b) Where D is less than Table depth (if allowed) (Table depth—D) R = ✓ If restricted by superstructures ✓	<b>Round of Beam correction.</b> Moulded Breadth (B) <b>16.500</b> ✓ Standard Round of Beam = $\frac{B \times 22}{50} =$ <b>330.</b> Ship's Round of Beam = <b>330 m/m</b> Difference <b>NIL.</b> Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>NIL.</b> ✓
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	8.230 ✓	8.230	2.300	✓	8.230.
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	26.400 ✓	26.400	2.400	✓	26.400.
„ overhang aft ...					
„ overhang forward ...					
F'dle enclosed ... <i>2.900</i>	22.415 ✓	22.415	2.300	✓	22.415.
„ overhang ...	0.613 ✓	0.613	2.300	✓	0.613.
Trunk aft ...	1.225 ✓				
„ forward ...					
Tonnage opening aft... ..					
„ „ forward ...					
Total ...	58.270	57.658 ✓			57.658 ✓

Standard Height of Superstructure **2.22 M.** ✓

„ „ R.Q.D. ✓

Deduction for complete superstructure **1028 m/m.** ✓

Percentage covered  $\frac{S}{L} =$  **50.67.** ✓

„ „  $\frac{S_1}{L} =$  **50.14.** ✓

Percentage from Table, Line A. ✓  
(corrected for absence of forecastle (if required)) ✓

Percentage from Table, Line B. **36.10** ✓  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **1028 × 36.10 = -372 m/m**

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	1212.	1	1212.	1.212	1212.	1	1212.
$\frac{1}{6}$ L from A.P. ...	539.	4	2156.	0.539	539.	4	2156.
$\frac{2}{6}$ L „ ...	135	2	270.	0.135	135	2	270.
Amidships ...	✓	4	✓	0	✓	4	✓
$\frac{2}{6}$ L from F.P. ...	269.	2	538.	0.269	269.	2	538.
$\frac{1}{6}$ L „ ...	1077.	4	4308.	1.077	1077.	4	4308.
F.P. ...	2424.	1	2424.	2.424	2424.	1	2424.
Total ...			10908. ✓				10908.

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{0.75 - S}{2L} \right) =$  **NIL.** ✓

If limited on account of midship superstructure. ✓

Mean actual sheer aft  
Mean standard sheer aft = } **STANDARD.**

Mean actual sheer forward  
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } **STANDARD.**

„ „ aft of „ = } **SHEER.**

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **9.032** ✓

Summer freeboard = **1.667** ✓

Moulded draught (d) = **7.365** ✓

## Deduction for Tropical freeboard and addition for

Winter freeboard = **1.53** ✓

## Addition for Winter North Atlantic Freeboard (if required) = ✓

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 10,415$  K.TONS

Tons per  $\frac{1}{4}$  inch immersion at summer load water line

$T = 16.07$  K.TONS

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

= **167 m/m.** ✓

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

Correction for coefficient  $\frac{737 \times 68}{1.36} = \frac{1.417}{1.36}$  ✓

	+	-
Depth Correction ...	330	✓
Deduction for superstructures ...	✓	372.
Sheer correction ...	✓	✓
Round of Beam correction ...	✓	✓
Correction for Thickness of Deck amidships ...	✓	✓
Other corrections, scantlings, etc. ...	✓	✓
	330.	372.
Summer Freeboard =	<b>1667</b> ✓	

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

Tropical Fresh Water Line above Centre of Disc	315 m/m
Fresh Water Line	162 m/m
Tropical Line	153 m/m
Winter Line below	153 m/m
Winter North Atlantic Line	...

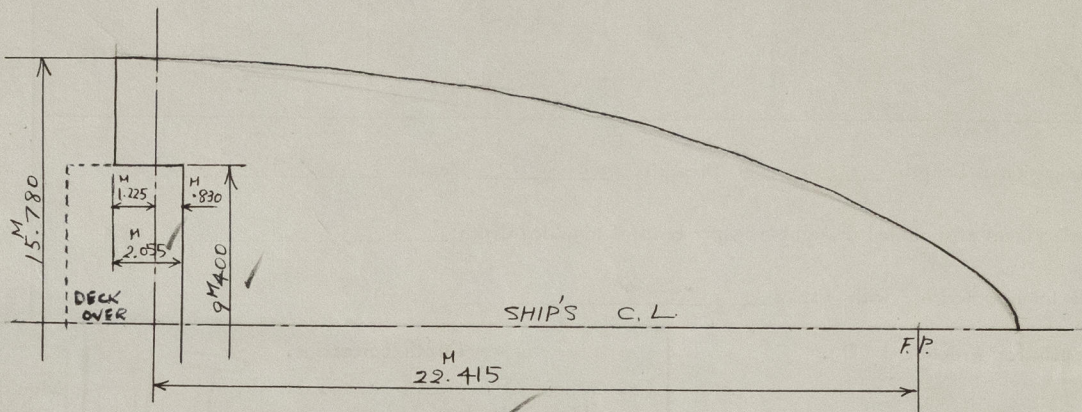
Tropical Fresh Water Freeboard	1352 m/m
Fresh Water	1505 m/m
Tropical	1514 m/m
Winter	1820 m/m
Winter North Atlantic	...



Henry Marn

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.

FORECASTLE



$$\begin{aligned}
 \text{Fdr. Length to aft. Bhd.} &= 23.640. \checkmark \\
 - \frac{2.055 \times 9.40}{15.78} &= - \frac{1.225}{22.415} \checkmark
 \end{aligned}$$

Trade of ship..... INTERNATIONAL .....

Names of sister ships..... ✓ .....

Builder's name and yard number..... FUJINAGATA SHIPBUILDING CO LTD ..... S No 25 .....

Owners..... INUI KISEN CO LTD .....

Fee £..... : .....

*Ref.*

0581



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Foundation