

**LLOYD'S REGISTER OF SHIPPING.**  
(CLASSIFICATION SOCIETY RECOGNISED BY THE JAPANESE GOVERNMENT)  
**SURVEY FOR FREEBOARD.**

Ship's Name <b>"KATSURAGI MARU"</b>	Port of Registry --	Official No. --	No. in R.B. --	Gross Tonnage <b>About 5950</b>	Tonnage under Fbd. Deck = V <b>5239.27</b>	Date of Launch <b>15th. May 1931</b>	Date when Built <b>1931</b>	Report Number <b>80</b>
Owners <b>Kokusai Kisen K.K.</b>		Builders <b>Uraga Dock Co.</b>			Yard No. <b>374</b>	Port of Survey <b>Yokohama.</b>		
Type of vessel <b>Shelter Deck.</b>	Particulars of Classification <b>*100A.1. With Freeboard</b>		Position of Freeboard Deck <b>2nd. Deck.</b>		Date of Survey <b>While Building.</b> Name of Surveyor <b>A. McClashan and H. J. Cox.</b>			

**PRINCIPAL DIMENSIONS.**

Length between perpendiculars ..... <b>440</b> ft.	Breadth Moulded = B <sub>0</sub> ..... <b>60</b> ft.	Depth Moulded to Fbd. deck = D <sub>0</sub> ..... <b>30.06</b> ft.
Length on Load Line ..... <b>440</b> ft.	Thickness of Side plating in ins. x 3/12 * ..... <b>.67x3/12 + .17</b> ft.	Round of Beam ..... <b>18"</b> + <b>1.50</b> ft.
Length for Freeboard = L ..... <b>440</b> ft.	Breadth for Freeboard = B ..... <b>60.17</b> ft.	Depth from base to top of inner bottom plating or ordinary floors ..... <b>31.56</b> ft.
		Depth for Tonnage Coef. (Art. 39) = D ..... <b>27.66</b> ft.

**CORRECTION TO TONNAGE (Art. 39)**

Tonnage between top of ceiling on double bottom or ordinary floors as fitted and standard level of top of ceiling (v) = **+ 82.24** tons.

**DEPTH OF DOUBLE BOTTOM (Art. 39)**

Depth of Actual Double Bottom (including plating) or Ordinary Floors **above T. of L. 46.75** ins.  
Depth of Standard Double Bottom (including plating) or Ordinary Floors ..... **46.54** ins.  
Difference ..... **.19**  
x 1/12 = ..... **.02 d.**

**SHEER (Arts. 39 and 60-63)**

Ordinate	Height of Sheer in inches.	S.M.	Products
1	<b>108.0</b>	1	<b>108.00</b>
2	<b>44.80</b>	4	<b>179.20</b>
3	<b>10.44</b>	2	<b>20.88</b>
4	<b>0</b>	4	<b>0</b>
5	<b>5.25</b>	2	<b>10.50</b>
6	<b>21.69</b>	4	<b>86.76</b>
7	<b>54.0</b>	1	<b>54.00</b>

Sum of Products = **459.34**

Mean Height of Sheer = S =  $\frac{\text{Sum of Products}}{18} = \frac{459.34}{18} = \mathbf{25.52}$  ins.

Standard Mean Height = S<sub>0</sub> =  $\frac{1}{3}(L/10 + 10) = \frac{1}{3}(440/10 + 10) = \mathbf{18.00}$  ins.

Difference ..... **7.52** x 1/12 = **.63** ft. = d<sub>1</sub>

Correction (Arts. 60-63) =  $\frac{3}{4}(1 - e)(S_0 - S) = \frac{3}{4}(1 - e)(18.00 - 25.52) = \mathbf{-4x.06x7.52 = -.34}$  ins.

**FRAMING (Art. 39)**

Between Frames	Length in ft.	Depth of Frame in ins.	Thickness of Sparring in inches	Total depth in inches	Products ft. x inches
<b>48-49</b>	<b>41.0</b>	<b>8</b>	<b>0</b>	<b>8.0</b>	<b>328.0</b>
<b>49-50</b>	<b>13.5</b>	<b>11</b>	<b>.5</b>	<b>11.5</b>	<b>155.25</b>
<b>50-51</b>	<b>39.0</b>	<b>12</b>	<b>.5</b>	<b>12.5</b>	<b>487.50</b>
<b>51-52</b>	<b>256.5</b>	<b>11</b>	<b>.5</b>	<b>11.5</b>	<b>2949.75</b>
<b>52-53</b>	<b>45.0</b>	<b>11</b>	<b>0</b>	<b>11.0</b>	<b>495.00</b>
<b>53-54</b>	<b>45.0</b>	<b>12</b>	<b>.5</b>	<b>12.5</b>	<b>562.50</b>

Sum of Products = **4978.00**

Sum of Products = Actual Mean Depth of framing **11.31** ins.  
Length of Ship

Standard " " " " **9.00** ins.

Difference ..... **2.31** x 2/12 = **.39** = 2b

**COEFFICIENT OF FINENESS (Art. 33 or 43)**

$$\frac{100(V + v)}{L(B - 2b)(D + d + d_1) + n}$$

$$= \frac{532151}{440 \times 59.78 \times 28.31} + = \mathbf{.71}$$

$$\text{or } \frac{35 \times \Delta}{L \times B_0 \times d_0} + 0.04$$

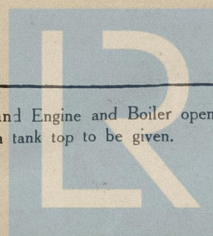
$$= + 0.04 =$$

Correction to Tonnage for double bottom **+82.24 Tons.**

Sketch showing arrangement and height of double bottom or ordinary floors and of superstructures (unless complete plans are submitted).

See Plans.

Sketch of deck erections showing openings in end bulkheads and position and arrangement of closing appliances. Hatchways, and Engine and Boiler openings also to be shown. Extent and thickness of wood deck or composition to be shown in red ink, and extent and thickness of ceiling (and battens) on tank top to be given.



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