

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name KAWASAKI DOCKYARD. NO 925.	Official Number	Nationality and Port of Registry NORWEGIAN.	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 595.0' Breadth 83.33' Depth 44.37'					Date of Survey 31.12.51.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 42525 RT 41855 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .783.					Particulars of Classification 1100 A1 CP1B. contingent.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 44.37.	(a) Where D is greater than Table depth (D-Table depth) R = (44.46 - 39.67) 3 = +14.37"	Moulded Breadth (B) 83.33.
Stringer plate 1.04.09.	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 20.00.$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 19.69.
Depth for Freeboard (D) = 44.46.		Difference .31
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.31}{4} \times .5948 = +.05$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equip.</i> ...	141.43.	141.43.	8.73'	✓	141.43.
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>Equip. Opn.</i> ...	47.24.	23.62.	7.97	✓	23.62.
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	76.07.	76.07.	7.71.	✓	76.07.
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	264.74.	241.12.			241.12.

Standard Height of Superstructure **7.50'**

" " R.Q.D. ✓

Deduction for complete superstructure **42.00.**

Percentage covered $\frac{S}{L} = 44.50.$

" " $\frac{S_1}{L} = 40.52.$

" " $\frac{E}{L} = 40.52.$

Percentage from Table, ~~Line A. TANKER.~~ **31.52.**
(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 = **42.00 × 31.52 = -13.24"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	69.50.	1		69.50	31.89.	31.89.	1		31.89.
$\frac{1}{4}$ L from A.P. ...	30.925	4		123.70	3.27.	3.27.	4		13.08
$\frac{2}{4}$ L " ...	7.645	2		15.29	✓	✓	2		✓
Amidships ...	✓	4		✓	✓	✓	4		✓
$\frac{3}{4}$ L from F.P. ...	15.29.	2		30.58	✓	✓	2		✓
$\frac{1}{4}$ L " ...	61.85.	4		247.40	6.89.	6.89.	4		27.56
F.P. ...	139.00	1		139.00	62.99.	62.99.	1		62.99.
Total ...	✓	✓		625.47			✓		135.52

Mean actual sheer aft =
Mean standard sheer aft = } DEFICIENT.

Mean actual sheer forward =
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } DEFICIENT.
" " aft of " = } SHEER.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{489.95}{18} \left(.75 - \frac{2225}{5275} \right) = +14.36"$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD																														
<p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 44.46.</p> <p>Summer freeboard = 10.92.</p> <p>Moulded draught (d) = 33.54.</p> <p>Keel allowance =</p> <p>Extreme draught =</p> <p>Deduction for Tropical freeboard and addition for</p> <p>Winter freeboard = $\frac{d}{4}$ inches = 8.38. 8½"</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 8.38-5.95: 14.33: 14¼"</p>	<p>Displacement in salt water at summer load water line ?</p> <p>$\Delta = 37689.$</p> <p>Tons per inch immersion at summer load water line ?</p> <p>$T = 90.42.$</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches</p> <p>= 10.42 = 10½"</p>	<p>Corrected for Flush Deck (if required)</p> <p>Correction for coefficient 783.68. 1.463 1.36 1.36</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>14.37</td> <td>✓</td> </tr> <tr> <td>Deduction for superstructures</td> <td>✓</td> <td>13.24.</td> </tr> <tr> <td>Sheer correction</td> <td>14.36</td> <td>✓</td> </tr> <tr> <td>Round of Beam correction</td> <td>.05</td> <td>✓</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>✓</td> <td>✓</td> </tr> <tr> <td></td> <td>28.78</td> <td>13.24.</td> </tr> <tr> <td></td> <td></td> <td>+15.54.</td> </tr> <tr> <td></td> <td></td> <td>Summer Freeboard = 131.12</td> </tr> </table>		+	-	Depth Correction	14.37	✓	Deduction for superstructures	✓	13.24.	Sheer correction	14.36	✓	Round of Beam correction	.05	✓	Correction for Thickness of Deck amidships	✓	✓	Other corrections, scantlings, etc.	✓	✓		28.78	13.24.			+15.54.			Summer Freeboard = 131.12
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wm.~~ Steel, Deck :-

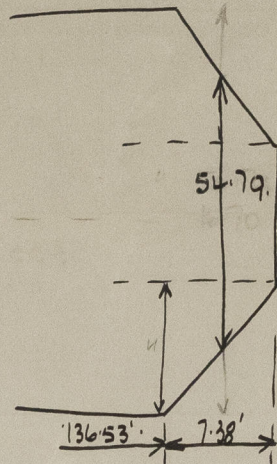
Tropical Fresh Water Line above Centre of Disc	19"	483m	Tropical Fresh Water Freeboard	9' 4"	2844 "
Fresh Water Line	10½"	267m	Fresh Water	10' 0½"	3060 "
Tropical Line	8½"	216 "	Tropical	10' 2½"	3111 "
Winter Line below	8½"	216 "	Winter	11' 7½"	3543 "
Winter North Atlantic Line	14¼"	362 "	Winter North Atlantic	12' 1¼"	3689 "

925.

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.

Poop.

$$\begin{aligned} \text{Length @ side} &= 136.53' \quad \checkmark \\ + 7.38 \times \frac{54.79}{82.50} &= \frac{4.90}{141.43} = \text{Equip Bhd.} \end{aligned}$$

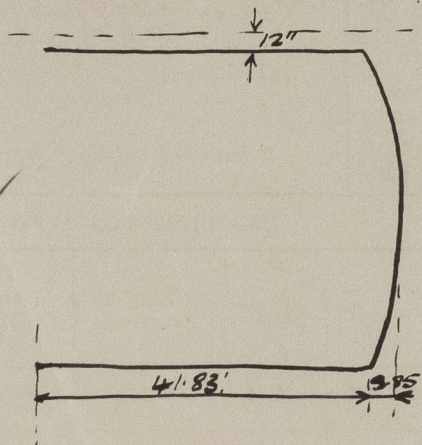


8.9.

8.0 +

Bridge - Open. at A.E.

$$\begin{aligned} \text{Length @ side} &= 41.83' \quad \checkmark \\ + 2/3 \times 9.85 &= + 6.57 \quad \checkmark \\ \checkmark 48.40 \times \frac{81.33}{83.33} &= 47.24 \quad \checkmark \end{aligned}$$



Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation