

DISCLOSED

SECTION 34223

Rpt. C.11.

18 AUG 1932

Index. No. 34223
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

now named *Kiyo Maru* of Tokyo

No 330

Computation of Freeboard for <i>Steamer, Sailing Ship, Tanker</i>				Port of Survey <i>Hamburg</i>
having <i>Prop and funnel</i>				Date of Survey <i>16th Aug 1932</i>
(Type of Superstructures.)				Name of Surveyor <i>H. Goering</i>
Ship's Name <i>KIYO MARU</i> <i>(ex "VIGRID")</i>	Nationality and Port of Registry <i>Japanese</i> <i>Tokyo</i>	Official Number <i>7356</i>	Gross Tonnage <i>7356</i>	Date of Build <i>1930</i> <i>7 mo.</i>
Moulded Dimensions: Length <i>416.55</i> , Breadth <i>57.00</i> , Depth <i>33.00</i>				Particulars of Classification <i>+100 A1</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>15165 metric tons</i>				<i>"Carrying Petroleum in bulk"</i>
Coefficient of fineness for use with Tables <i>0.777</i> <i>784</i>				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
depth ... <i>33.00</i>	(a) Where D is greater than Table depth (D-Table depth) R = $(33.07 - 27.77) 3.00$ = <i>+15.9"</i>	Moulded Breadth (B) <i>57.00</i>
plate ... <i>2 1/4</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>✓</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{684}{50} = 13.68$
on exposed deck $\frac{L-S}{L} =$	If restricted by superstructures <i>✓</i>	Ship's Round of Beam = <i>13 3/4</i>
Depth for Freeboard (D) = <i>33.07</i>		Difference <i>Excess .07</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.07}{4} \times .2619 = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
enclosed ...	<i>103</i>	<i>103.00</i>	<i>8</i>		<i>103.00</i>	Standard Height of Superstructure <i>7.50</i>
overhang ...	<i>none</i>					" " R.Q.D. <i>✓</i>
D. enclosed ...	<i>✓</i>					Deduction for complete superstructure <i>42.00</i>
overhang ...	<i>✓</i>					Percentage covered $\frac{S}{L} = 43.45\%$ <i>✓</i>
ge enclosed <i>open</i> ...	<i>34.00</i>	<i>18.50</i>			<i>18.50</i>	" " $\frac{S_1}{L} = 74.81$ <i>✓</i>
overhang aft ...	<i>✓</i>					" " $\frac{E}{L} = 57.82$
overhang forward ...	<i>✓</i>					Percentage from Table, <i>Tanker</i> <i>49.60%</i> (corrected for absence of forecastle (if required))
enclosed <i>open</i> ...	<i>41</i>	<i>41.00</i>	<i>8</i>		<i>41.00</i>	Percentage from Table, Line B. (corrected for absence of forecastle (if required)) <i>✓</i>
overhang ...	<i>none</i>					Interpolation for bridge less than 2L (if required)
ak aft ...		<i>84.13</i>	<i>3.94</i>	<i>3.94</i>	<i>44.22</i>	Deduction = $42.00 \times .496 = -20.83$ <i>✓</i>
forward ...		<i>64.98</i>		<i>3.94</i>	<i>34.13</i>	
nage opening aft ...						
" forward ...						
Total ...	<i>181.00</i>	<i>311.61</i>			<i>240.85</i>	

SHEER CORRECTION.

ion	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft = <i>Excess</i>
...	<i>51.65</i>	<i>✓</i>	<i>1</i>	<i>51.65</i>	<i>50 1/2</i>	<i>50.50</i>	<i>1</i>	<i>50.50</i>		Mean actual sheer forward = <i>Excess</i>
A.P. ...	<i>22.98</i>	<i>✓</i>	<i>4</i>	<i>91.92</i>	<i>24 3/4</i>	<i>24.75</i>	<i>4</i>	<i>99.00</i>		Mean standard sheer forward
...	<i>5.68</i>	<i>✓</i>	<i>2</i>	<i>11.36</i>	<i>6 3/4</i>	<i>6.75</i>	<i>2</i>	<i>13.50</i>		Length of enclosed superstructure forward of amidships = <i>Tanker</i>
...	<i>✓</i>	<i>✓</i>	<i>4</i>	<i>✓</i>	<i>0</i>	<i>✓</i>	<i>4</i>	<i>✓</i>		" " aft of " = <i>✓</i>
F.P. ...	<i>11.36</i>	<i>✓</i>	<i>2</i>	<i>22.72</i>	<i>13 3/4</i>	<i>13.75</i>	<i>2</i>	<i>27.50</i>		
...	<i>45.96</i>	<i>✓</i>	<i>4</i>	<i>183.84</i>	<i>44 1/4</i>	<i>44.25</i>	<i>4</i>	<i>177.00</i>		
...	<i>103.30</i>	<i>✓</i>	<i>1</i>	<i>103.30</i>	<i>103 3/8</i>	<i>103.37</i>	<i>1</i>	<i>103.37</i>		
total ...	<i>244.85</i>			<i>464.79</i>				<i>470.87</i>		

rection = $\frac{\text{Difference between sums of products}}{18} = \frac{6.08}{18} = .338$ *2172*
 $(.75 - \frac{S}{2L}) = (.75 - \frac{.338}{2}) = .532$ *5328*
If limited to maximum allowance of 1 1/2 ins. per 100 ft. *✓*

tion for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
on for Winter and Winter North	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.784 + .68}{1.36} = \frac{1.464}{1.36}$
atic Freeboard.	$\Delta = 14650$	
Depth to Freeboard Deck = <i>33.07</i>	Tons per inch immersion at summer load water line	
Summer freeboard = <i>5.54</i>	$T = 49.5$	
Moulded draught (d) = <i>27.53</i>	Deduction = $\frac{\Delta}{40T}$ inches	
on for Tropical freeboard and addition for	$= 7.40$	
ter freeboard = $\frac{\Delta}{4}$ inches = <i>6.88</i> = <i>175 1/2</i>	$= 188 1/2$	
for Winter North Atlantic Freeboard (if		
ired = <i>6.25</i> = <i>159 1/2</i>		

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <i>wood</i> , Steel, Deck: <i>66.51</i> = <i>1.689 metres</i>	
Tropical Fresh Water Line above Centre of Disc <i>14.28</i> = <i>363 1/2</i>	Tropical Fresh Water Freeboard ... <i>52.23</i> = <i>1.326</i>
Fresh Water Line " " <i>7.40</i> = <i>188</i>	Fresh Water " " <i>59.11</i> = <i>1.501</i>
Tropical Line " " <i>6.88</i> = <i>175</i>	Tropical " " <i>59.63</i> = <i>1.514</i>
Winter Line below " " <i>6.88</i> = <i>175</i>	Winter " " <i>73.39</i> = <i>1.864</i>
Winter North Atlantic Line " " <i>13.12</i> = <i>334</i>	Winter North Atlantic " " <i>79.64</i> = <i>2.023</i>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...

Particulars of fiddle, funnel and ventilator coamings:— Fiddle top deck in height with deckhouse on poop deck. No openings fitted in fiddle top. Funnel and ventilator coamings efficiently fashioned and riveted to fiddle deck.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

4 companionways on poop deck aft with strong steel casing. Deck wood doors 27" x 60" sill 15" above wood deck.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

On forecastle deck two ventilators to fore. cargo hold 16" diam, casing 36" x 1/8 thick. The ventilators on forecastle deck are capable of being closed by wooden plugs and canvas covers. On freeboard deck two vent. to fore. cargo hold 16" diam, casing 36" x 1/8 thick. The ventilators on freeboard deck are capable of being closed by steel screwed caps.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

All air pipes on forecastle deck, freeboard deck and poop deck are 36" above deck. The air pipes to oil tanks are fitted with gauze. The air pipes to water ballast tanks are fitted with wooden plugs and canvas covers. All air pipes are of substantial construction.

Particulars of Gangway Cargo and Coaling Ports:—

none.

Particulars of Scuppers and Sanitary Discharge Pipes:—

6 scuppers on each side above freeboard deck 6" x 4 1/2". 1 scupper on each side aft in front of poop end bulkhead 3 1/2" diam below freeboard deck. All sanitary discharge pipes are fitted with steam valves.

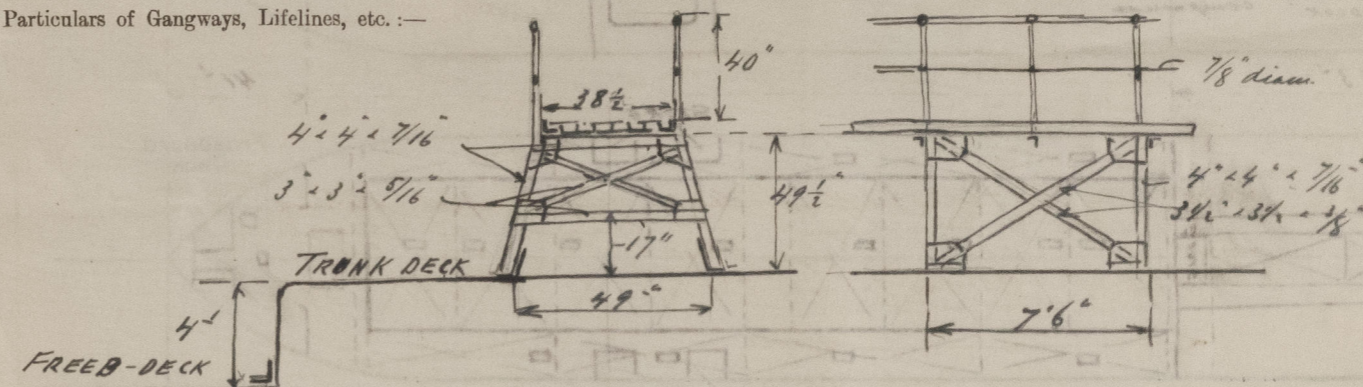
Particulars of Side Scuttles:—

Two side scuttles below freeboard deck aft in bailer room. The side scuttles are of substantial construction and fitted with inside dead latches permanently attached.

Particulars of Guard Rails:—

On forecastle deck open rail fitted. On freeboard deck open rail fitted. On poop deck open rail fitted.

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 (F. and A. position and height above deck edge) After Well: 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.

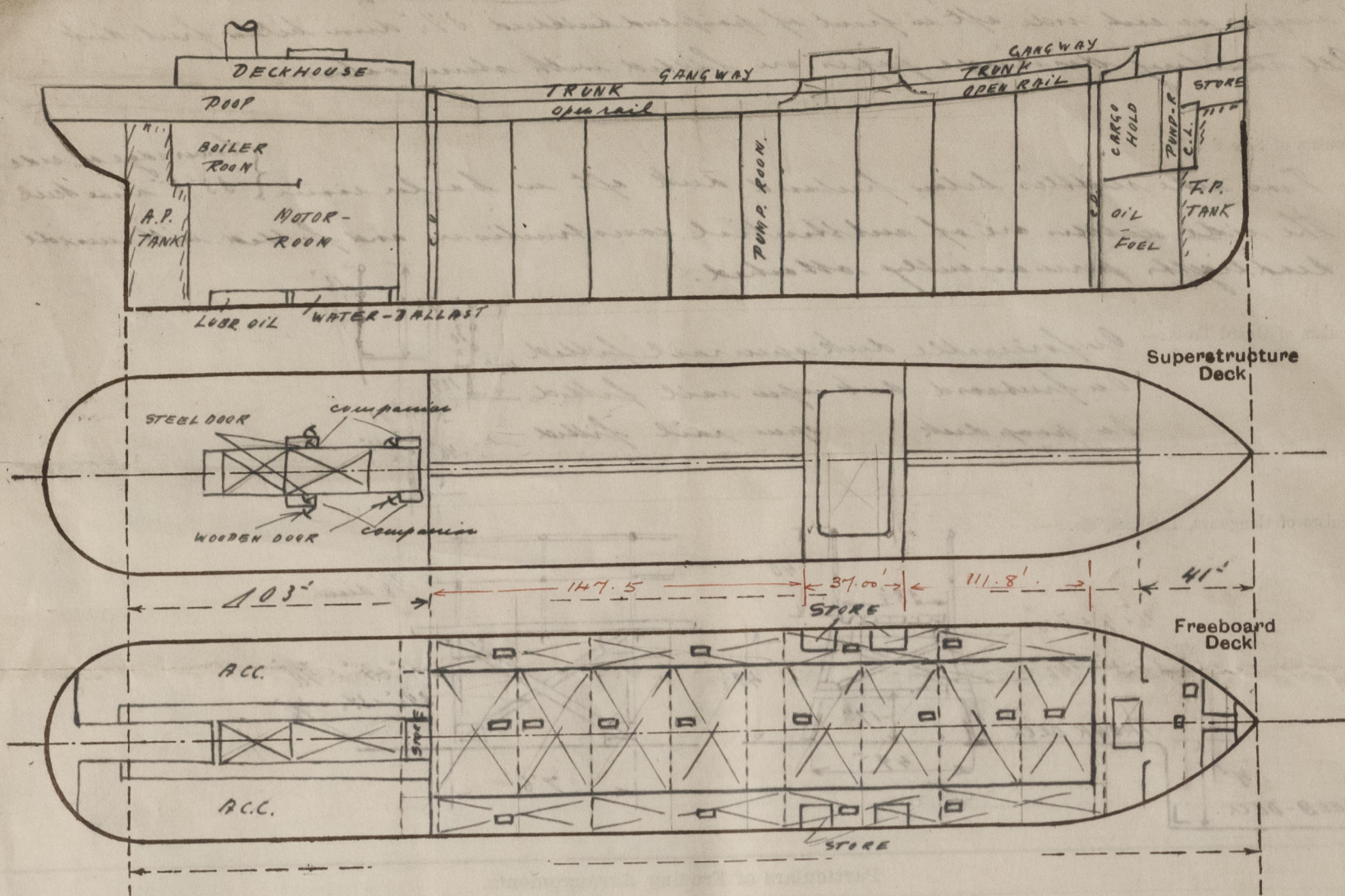
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	10 x 3 1/2 x 44 L	40	10 x 3 1/2 x 48 B A	27 1/2	Lugs T & B.	✓		
Raised Quarter Deck Bulkhead	...	...	...	...	...	...	...	...
Bridge, After Bulkhead	...	...	...	...	...	...	...	...
Bridge, Forward Bulkhead	...	...	...	...	...	...	...	...
Forecastle Bulkhead	20 x 3 1/2 x 38	34	5 1/8 x 2 1/2 x 30	27 1/2	Lugs top & bottom	✓	✓	8'
Trunk, Aft	...	...	...	...	...	...	...	...
Trunk, Forward	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Superstructure Decks	40	30	5 1/8 x 2 1/2 x 30	30"	none	none	✓	8'
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	...	...	...	...	...	...	...	...
Raised Quarter Deck Bulkhead	...	...	...	...	...	...	...	...
Bridge, After Bulkhead	...	...	...	...	...	...	...	...
Bridge, Forward Bulkhead	...	...	...	...	...	...	...	...
Forecastle Bulkhead	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Superstructure Decks	...	...	...	...	...	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...	...	...	...	...	...
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:—

The vessel has been surveyed afloat and in dry dock for condition, damage repairs to shell plating and load line.

$$\frac{111.8}{9.25} = 12.05$$

$$121.05 \times \frac{34}{57} \times 0.9 = 64.98$$

$$156.75 \times \frac{34}{57} \times 0.9 = 84.13$$

$$147.5 \times \frac{34}{57} \times 0.9 = 84.13$$

$$156.75$$

Builder's name and yard number *Deutsche Werft. A.G. Hamburg Yard No. 41.*

Names of sister ships

Owners *Skibs. A/S. Vigrid (Brunn and Lippe) Trondheim.*

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Received by me



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