

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for ^{Motor}Steamer, Sailing Ship, Tanker
having Poof Bridge and forecastle

Port of Survey Rotterdam

Date of Survey 22/9. 32.

Ship's Name
"KOTA-ADONG"

Nationality and Port of Official Number
Registry Dutch
Rotterdam Batavia 28.11.40

Gross Tonnage
7331-

Date of Build
10/1930

Name of Surveyor R. J. J. J. J.

Moulded Dimensions: Length 448'-4" Breadth 60'-6" Depth 33'-6"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 16110 cu³ tons

Coefficient of fineness for use with Tables .737.

Particulars of Classification +100 A.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	10.210	(a) Where D is greater than Table depth (D-Table depth) R =	8.33(10.244-9.109)30 = +.284	Moulded Breadth (B)	18.440
Stringer plate	.011	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 18}{50}$	369
Sheathing on exposed deck		If restricted by superstructures		Ship's Round of Beam	381
$T \left(\frac{L-S}{L} \right) = 59 (440)$.023			Difference	12
Depth for Freeboard (D) =	10.244			Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{12}{4} (1 - \frac{57.48}{18.440}) = 1.7$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poof enclosed	15.423	15.423	2.266	2.290	15.108
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	45.429	45.429	2.266	2.290	45.429
" overhang aft					
" overhang forward					
F'cle enclosed	15.440	15.440	2.266	2.290	15.440
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	80.648	78.543			78.228

Standard Height of Superstructure 2.290
" " R.Q.D.
Deduction for complete superstructure 1.067.
Percentage covered $\frac{S}{L} = 59.02$
" " $\frac{S_1}{L} = 57.48$
" " $\frac{E}{L} = 57.26$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 43.26.
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = 462

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	1392	1	1,392	840	840	840	1	840	840
$\frac{1}{2}$ L from A.P.	620	4	2,480	367	367	367	4	1,468	1,468
$\frac{3}{8}$ L	153	2	306	91	91	91	2	182	182
Amidships		4					4		
$\frac{3}{8}$ L from F.P.	306	2	612	380	380	380	2	670	670
$\frac{1}{2}$ L	1,239	4	4,956	1515	1515	1515	4	5,384	5,384
F.P.	2,784	1	2,784	3344	3344	3344	1	3,001	3,001
Total			12,530					11,545	

Mean actual sheer aft = Deficient
Mean standard sheer aft

Mean actual sheer forward = Excess
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .159
" " aft of " = .175.

SHEERS AFT.				FORWARD.			
S ₁	S	Actual	Standard	S ₁	S	Actual	Standard
1392	840	1392	840	380	1515	380	1515
620	367	620	367	306	1239	306	1239
153	91	153	91	74	276	74	276
				29	107	29	107
				306	1239	306	1239
				335	1346	335	1346
					3001		3001

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{985}{18} (.75 - \frac{2951}{4549})$

If limited on account of midship superstructure. +25. If limited to maximum allowance of $\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.
Ft.
Depth to Freeboard Deck = 10.221.
Summer freeboard = 2.110.
Moulded draught (d) = 8.111.
Deduction for Tropical freeboard and addition for
Winter freeboard = $\frac{d}{48}$ inches = 169⁷/₈
= 17 cm.
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.
Displacement in salt water at summer load water line
 $\Delta = \frac{15181}{15160}$ from scale used.
Tons per inch immersion at summer load water line
T = 54.1
Deduction = $\frac{\Delta}{40 T}$ inches
= 7.01
= 18 cms.

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient .737 + .68
Depth Correction ... 284
Deduction for superstructures ... 462
Sheer correction ... 25
Round of Beam correction ... 1
Correction for Thickness of Deck amidships ... 23
Other corrections, scantlings, etc. wood decks

Summer Freeboard = 2.114	
2.199	2.291
284	462
25	1
23	
309	486
177	

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

Tropical Fresh Water Line above Centre of Disc	35 cms.	Tropical Fresh Water Freeboard	176 "
Fresh Water Line	18 "	Fresh Water	193 "
Tropical Line	17 "	Tropical	194 "
Winter Line below	17 "	Winter	228 "
Winter North Atlantic Line		Winter North Atlantic	

29 SEP 1933

MARKING FORM

RECEIVED 26 AUG 1935

MARKING FORM

RECEIVED 21 DEC 1932

MARKING FORM

RECEIVED 15 FEB

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway			No 1	No 2	No 3	No 4					
Dimensions of Hatchway			22'-6" x 18'-	30' x 18'-	32'-6" x 18'-	22'-6" x 18'-					
COAMINGS	{	Height above Deck	30" for all hatchways								
		Thickness	Sides	44	30						
			Ends	44	30						
		Stiffeners	2" x 3 x 40								
		Brackets, Stays	2	2	3	2					
HATCH BEAMS	{	Number	4	5	6	4					
		Spacing	equal for all hatchways -								
		Scantling and Sketch	16" x 36" plank. Dr. Dr.								
			75 x 100 x 11 1/2 Dr. Dr.								
		Bearing Surface	3"	3"	3"	3"					
FORE AND AFTERS	{	Number									
		Spacing									
		Unsupported Lengths									
		Scantling and Sketch									
		Bearing Surface									
HATCH COVERS	{	Material	Pine all hatchways								
		Thickness	2 1/2"								
		How fitted	2 longitudinal "								
		Bearing Surface	3" " " "								
Spacing of Cleats			24" all hatchways								
Number of Tarpaulins			Two " " "								
*Are wood fore and afters steel shod at all bearing surfaces? No fore and afters.											
Are battens and wedges efficient and in good condition? Yes.											
Are tarpaulins in good condition and in accordance with rule requirements? Yes.											
Are lashings provided in accordance with rule requirements? Yes.											

Particulars of fiddle, funnel and ventilator coamings:— All parts efficiently constructed and good

Particulars of Flush Bunker Scuttles:— None fitted

Particulars of Companionways:— One for tween deck entrance under forecabin, under bridge and under poop. See sketch. 4'-6" x 30" steel 18" strong WT doors hinged and closed at sea, not manipulated from both sides

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

On forecabin	4 Nos	8 dia. 14" and 15" Coaming - 36" height 36"	Bridge deck Ventilators - carried up to boat deck all parts efficiently constructed closed by steel caps and canvas covers.
On forewell	9 Nos	15" - 18" " 24" " .40" " 36"	
On afterwell	8 Nos	18" - 20" " 24" " .40" " 36"	
On poop	1 No	20" " " .40" " 36"	

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— All air pipes, goose necks from peak. Dmn. deep tanks on the forecabin in the well and on the bridge and poop 30" to 36" height can be closed by hinged lids or canvas covers.

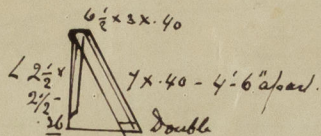
Particulars of Gangway Cargo and Coaling Ports:— None fitted.



Particulars of Scuppers and Sanitary Discharge Pipes:— The scuppers are strong steel pipes without non return valves leading 3 ft above tween deck. The sanitary pipes have all non return valves as per rules and are all efficiently constructed.

Particulars of Side Scuttles:— Side scuttles have all hinged dead lights except under poop and fore-castle. dead lights portable and are all of substantial construction.

Particulars of Guard Rails:— Steel Bulwark. 4 ft height in walls. On fore-castle 3. Rail H 46" D. 48" On bridge 4. 50 H. 44" D. 48" On poop 4. 50 H. 44" D. 52" Substantial construction



Particulars of Gangways, Lifelines, etc.:— Ropes rigged up in bad weather

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	95 ft.	4'-0"	3.25 x 1.6	4	20.8 ft ²	19 ft ²
Forward Well	91 ft. - 6"	4'-0"	3.25 x 1.6	4	20.8 ft ²	18.3 ft ²
State position of each freeing port equal divided. After Well:— 14" to 12" above gutterway (F. and A. position and height above deck edge) Forward Well:— 14" to 13" " " State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— L Rims. Luss. Rods. 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	11 1/2 in.	10 in.	L 140 x 75 x 9 1/2	720 in.	Lugs top & bottom	4'-3" x 4'-6"	none	
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	8 in.	6 in.	L 45 x 90 x 10	785 in.	none	3'-6" x 4'-9"	none	
Bridge, Forward Bulkhead	11 in.	10 in.	L 240 x 90 x 12 1/2	30"	Lugs top & bottom	48" x 4'-9"	23"	
Fore-castle Bulkhead	8 in.	6 in.	L 90 x 90 x 10	750 in.	none	See sketch.		
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	30	26	L 5 x 2 1/2 x 40	30"	Top lugs.	24" x 4'-4"	16"	
Exposed Machinery Casings on Super-structure Decks	30	26	L 80 " "	30"	Do	30" x 4'-10"	18"	
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	Wood shifting boards in riveted channels full height. 2 1/2" - can be supported in center
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Wood " " " " " " " " " "
Bridge, Forward Bulkhead	Strong WT. Steel doors on hinges manipulated from outside.
Fore-castle Bulkhead	See sketch. open all ways
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Steel doors manipulated from both sides.
Exposed Machinery Casings on Super-structure Decks	Do. " " " " " "
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	

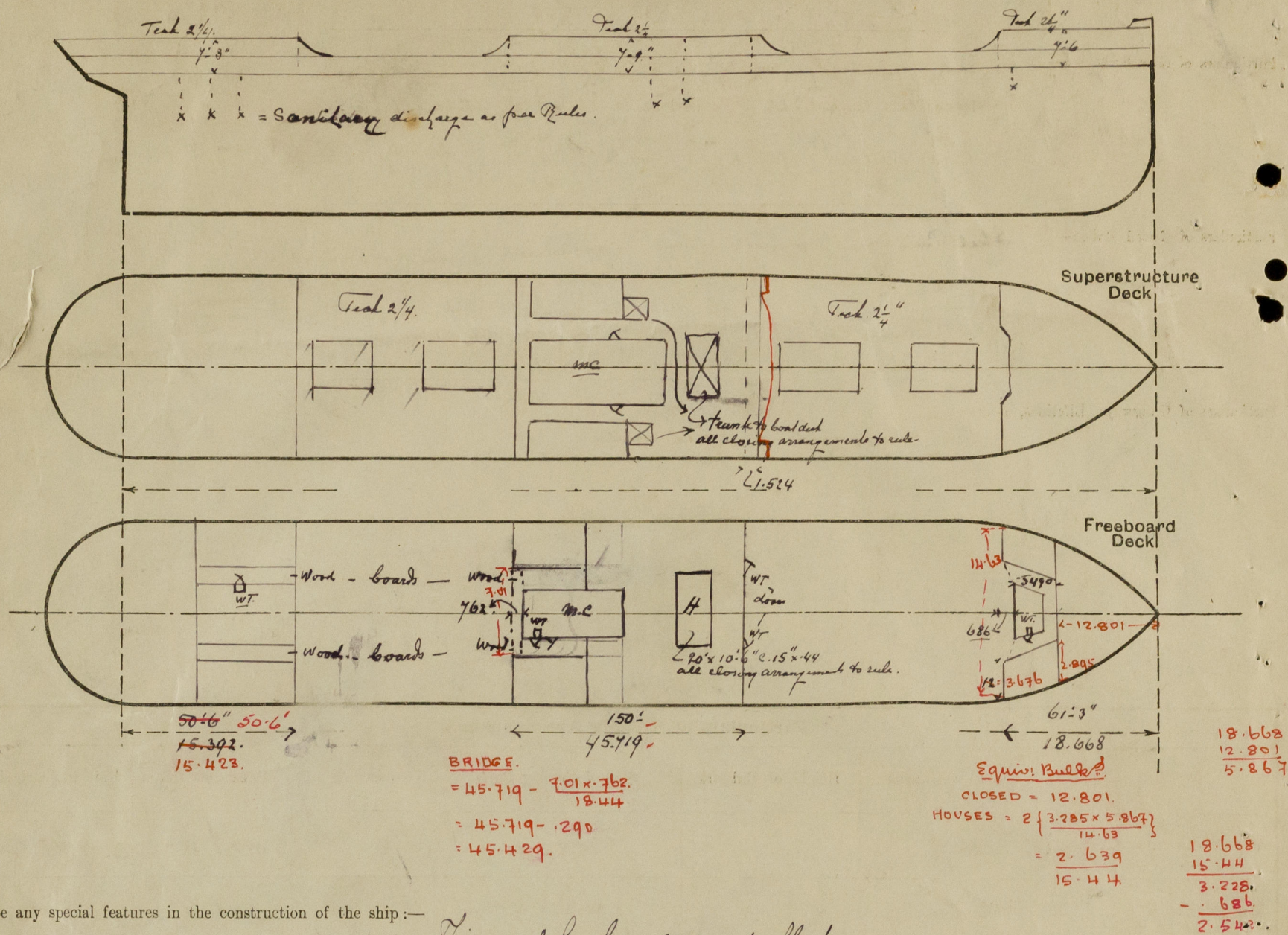


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

This vessel has been surveyed afloat.

Builder's name and yard number *Machelaffy Eindhoven Rotterdam*

Names of sister ships *S/S. 'Kota Jodi' see freeboard report No 21430*

Owners *Rotterdamse Lloyd*

Fee *£183.60* : will be Received by me *R. K. K. K.*



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