

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **32658**
(For London Office only.)

20 AUG 1932

No 21361.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *complete superstructure with tonnage opening.*Port of Survey *Rotterdam*

(Type of Superstructures.)

Date of Survey *6-8/8-1932*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*S.S. "JONGE JOHANNA"**Dutch.**1464**1928-11**Rotterdam*Name of Surveyor *L. Vuyk*Moulded Dimensions: Length *80.77* Breadth *11.735* Depth *5.588*Moulded displacement at moulded draught = 85 per cent. of moulded depth *3405 TONS* *3375 M³ TONS*
(OF 1016 KG)Coefficient of fineness for use with Tables *.75*Particulars of Classification *+100 A.L.**with freeboard.*

Depth for Freeboard (D)

Depth correction

Round of Beam correction

Moulded depth ... *5.588*Stringer plate ... *0.009*

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = *5.597*

(a) Where D is greater than Table depth

(D-Table depth) R =

5.33 / (5.597 - 5.385) / 20.397 = 36

(b) Where D is less than Table depth (if allowed)

(Table depth-D) R =

If restricted by superstructures

Moulded Breadth (B)

Standard Round of Beam = $\frac{B \times R}{50} =$ *11.735*Ship's Round of Beam = *0.240*Difference *excess* *5*

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{5}{4} \times .0082 = .01025$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>7.721</i>	<i>7.72</i>	<i>2.337</i>		<i>7.72</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward ...	<i>71.729</i>	<i>71.73</i>	<i>2.337</i>		<i>71.73</i>
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<i>1.321</i>	<i>.66</i>	<i>2.337</i>		<i>.66</i>
" " forward ...					
Total ...	<i>80.44</i>	<i>80.11</i>			<i>80.11</i>

Standard Height of Superstructure *1846*" " R.Q.D. *1846*Deduction for complete superstructure *826*Percentage covered $\frac{S}{L} =$ *100* $\frac{S_1}{L} =$ *99.18* $\frac{E}{L} =$ *99.18*Percentage from Table, Line A. *98.99*

(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 = *.9899 x 826 = 818*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>927</i>	1		<i>927</i>	<i>0.933</i>	<i>1.394</i>	1		<i>1.394</i>
$\frac{1}{4}$ L from A.P. ...	<i>412</i>	4		<i>1648</i>	<i>0.362</i>	<i>.620</i>	4		<i>2.480</i>
$\frac{3}{4}$ L " ...	<i>103</i>	2		<i>206</i>	<i>0.073</i>	<i>.153</i>	2		<i>.306</i>
Amidships ...		4			<i>0.</i>		4		
$\frac{3}{4}$ L from F.P. ...	<i>206</i>	2		<i>412</i>	<i>0.184</i>	<i>.253</i>	2		<i>.506</i>
$\frac{1}{4}$ L " ...	<i>824</i>	4		<i>3296</i>	<i>0.676</i>	<i>1.028</i>	4		<i>4.088</i>
F.P. ...	<i>1854</i>	1		<i>1854</i>	<i>0.1835</i>	<i>.2296</i>	1		<i>.2296</i>
Total ...				<i>8343</i>					<i>11070</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{2727}{18} \times .25 = (-) 38$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *5597*Summer freeboard = *130*Moulded draught (d) = *5464*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48}$ inches = *114*Addition for Winter North Atlantic Freeboard (if required) = *5 c.M.*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ *4045 TONS*

Tons per inch immersion at summer load water line

 $T =$ *8.22*Deduction = $\frac{\Delta}{40 T}$ inches $=$ *12 c.M.*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.75 \times .68}{1.36} = \frac{.51}{1.36}$ Depth Correction ... *36*Deduction for superstructures ... *818*Sheer correction ... *38*

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
<i>36</i>	
	<i>818</i>
	<i>38</i>
<i>36</i>	<i>856</i>
	<i>(-) 820</i>

Summer Freeboard = *124*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *13 c.M.*, Steel, Deck:—Tropical Fresh Water Line above Centre of Disc ... *20 c.M.*Fresh Water Line " " ... *12 c.M.*Tropical Line " " ... *8 c.M.*Winter Line below " " ... *11 c.M.*Winter North Atlantic Line " " ... *16 c.M.*Tropical Fresh Water Freeboard MINUS... *7 c.M.*Fresh Water " " ... *1 c.M.*Tropical " " ... *5 c.M.*Winter " " ... *24 c.M.*Winter North Atlantic " " ... *29 c.M.*OCT 1932
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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	FREEBOARD DECK				SUPERSTRUCTURE DECK				
	Nº 1	Nº 2	Nº 3	Nº 4	Nº 1	Nº 2	Nº 3	Nº 4	
Dimensions of Hatchway	23'0" x 14'0"	34'0" x 14'0"	26'0" x 14'0"	19'6" x 14'0"	23'0" x 14'0"	30'4" x 14'0"	26'0" x 14'0"	19'6" x 14'0"	
COAMINGS	Height above Deck	9 x 3 1/2	4.4 BA	for all hatchways	30"	for all hatchways			
	Thickness Sides				.44	"	"	"	
	Thickness Ends				.44	"	"	"	
	Stiffeners	none			7 x 3 x .40	for all hatchways			
HATCH BEAMS	Brackets, Stays	none			2 slugs 7' 6"	"	"	"	
	Number	5	7	5	3	5	5	3	
	Spacing	3.9'	4.3'	4.3'	4.8'	3.9'	5'	4.3'	
	Scantling and Sketch	14 x .34	12 x .32	same as Nº 2	same as Nº 2	12 x .34	for all hatchways		
FORE AND AFTERS	Bearing Surface	3"	3"	3"	3"	3"			
	Number	None fitted			None fitted				
	Spacing								
	Unsupported Lengths								
HATCH COVERS	Scantling and Sketch								
	Bearing Surface								
	Material	pine			pine				
	Thickness	1 1/2"			2 1/2"				
HATCH COVERS	How fitted	longitudinally			longitudinally				
	Bearing Surface	3"			3"				
	Spacing of Cleats	24"			23"				
	Number of Tarpaulins	two			two				

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel and ventilator in efficient condition.
 Stokhold gratings covered by strong steel hinged covers.—
 Engine skylight of steel with steel flaps strongly constructed.—

Particulars of Flush Bunker Scuttles:—

None fitted.—

Particulars of Companionways:—

Steel deckhouse on aftermost of superstructure deck forming entrance crewspace and wheelhouse, doors leading to crew space of steel non watertight with 18" sill and capable of being operated from both sides.—
 door leading to storeroom aft of steel non watertight with 18" sill and being operated from both sides.—

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

on superstructure deck 1 vent 9" dia. coaming 36 x .28 led to forepeak.
 8 vents 20" dia. " 36 x .34 led to holdspace.
 2 vents 24" dia. " 18'0" x .34 led to holdspace well supported.
 1 vent 18" dia. " 10'0" x .32 led to bunker (4' vent).

All ventilators constructed in accordance with Rules and coamings closed with wood plugs and canvas covers.—

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

on superstructure deck 1 steel air pipe 3" dia. x 28' high from forepeak
 10 " " " 3" " x 28" " from double bottom tanks.—
 2 " " " 2 1/2" " x 21" " " " " "
 4 " " " 4" " x 28" " " " " "
 2 " " " 3" " x 28" " " afterpeak.—

All air pipes are closed with wood plugs and canvas covers.—

Particulars of Gangway Cargo and Coaling Ports:—

None fitted.—

Particulars of Scuppers and Sanitary Discharge Pipes:—

9 scuppers cut through stringer angle from superstructure deck.
 5 scuppers from freeboard deck forward of bonnet well fitted with storm valves in order to be closed.
 1 scupper from freeboard deck in bonnet well fitted with storm valve in order to be closed.
 1 from Captains and Officers accommodation in central deckhouse stark post.
 1 from crewspace in after end of superstructure deck stark post.
 all sanitary discharges are fitted with storm valves to shell below freeboard deck.

Particulars of Side Scuttles:—

All scuttles in way of crewspace in after end of superstructure deck are of substantial construction and fitted with permanently attached deadlights.—

Particulars of Guard Rails:—

Steel bulwarks on superstructure deck forward and aft of Bridge house 3'6" high efficiently constructed and supported.— Where open rail is fitted as shown in sketch stanchions are spaced 4'3" apart.—

Particulars of Gangways, Lifelines, etc.:—

None fitted.—

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
TONNAGE WELL						
After Well	4'4"	7'0"	1.7 x 1.25	One	2.13	To close
Forward Well						

State position of each freeing port (P. and A. position and height above deck edge) } Tonnage Well — height above deck edge 16"
 } Forward Well:—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— steel hinged shutters.—

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	vertical plating .24		120 x 75 x 3.52	30	none	none	—	—
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	vertical plating .24		120 x 75 x 3.52	30	none	4'0" x 3'0"	24	—
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	.32	.26	3 x 2 1/2 x .30	26"	none	4'8" x 2'2"	18"	10'8"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	.36	.30	extending from freeboard deck to casing top.			4'3" x 2'1"	24"	
Deckhouses on Flush Deck Ships								

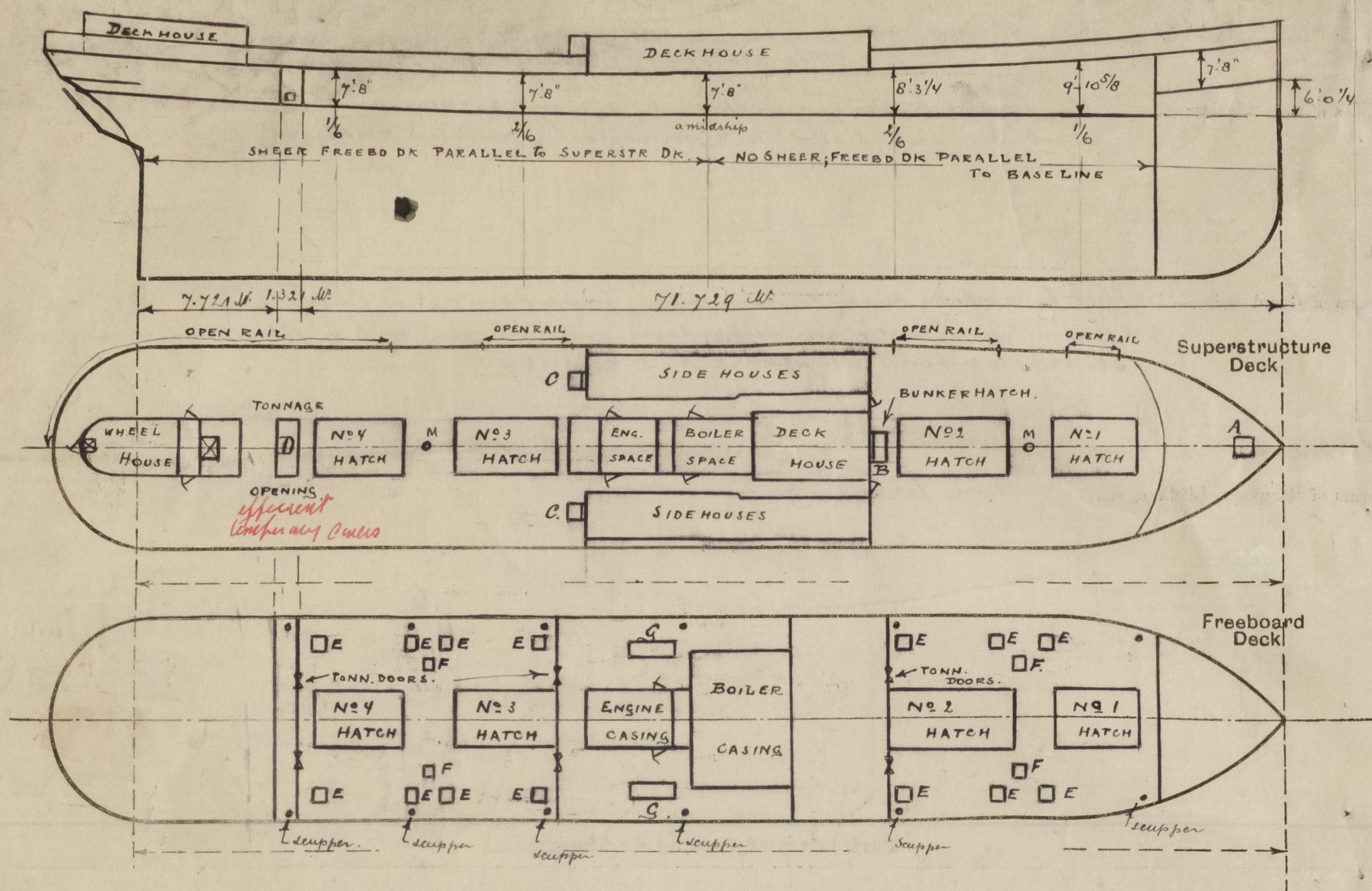
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	No openings.—
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	openings closed with 2 1/2" wood board in channels riveted to bulkhead for full height of opening.—
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	Steel hinged non watertight doors operated from both sides.—
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel hinged watertight doors operated from both sides.—
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, coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



Particulars have been taken whilst the vessel was lying afloat.—

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

- Small hatches on superstructure deck — A 1 hatch 3'0" x 2'0" coaming 24"; hatches 2 1/2"; cleats spaced 22"; 2 tarpaulins.
 B 1 hatch 8'0" x 3'8" " 30"; " 2 1/2"; " " 24"; 2 "
 C 2 hatches 3'4" x 4'3" " 30"; " 2 1/2"; " " 24"; 2 "
 Tonnage hatchway — D 1 " 4'7" x 14'0" " 9 x 3 1/2 x .44 BA
 Small hatches on freeboard deck — E 14 hinging hatches 2'0" x 2'6"; coaming 9" BA closed with wood hinged screw down cover...
 F 4 escape hatches 1'8" x 2'0"; coaming 4" angle closed with steel screw down cover...
 G 2 hatches 10'6" x 2'6" coaming 9" BA; hatches 2 1/2"; cleats spaced 24"; 2 tarpaulins.

Extreme Displacement at present summer freeboard	17' 6 7/8 draught —	3885 tons (of 1016 kg)
" " "	16' 6 7/8 " —	3644 tons "
" " "	18' 6 7/8 " —	4128 tons "
Tons per inch immersion, at	17' 6 7/8 " —	20.50
" " "	16' 6 7/8 " —	20.32
" " "	18' 6 7/8 " —	20.65

Builder's name and yard number *Machiniefabriek & Scheepswerk van P. Smid Jr. Yard number 437*

Names of sister ships *S.S. "Jonge Elisabeth" Yard number 438.*

Owners *N.V. Maatsch. Stoomschip "Jonge Johanna"; N.V. Middellandsche Zeevaart Co. Mgrs.*

Fee *£ 102.00* will be Received by me *L. Vuyk*



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