

24 OCT 1934

Index. No. 32877
(For London Office only.)

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

11-23251

Computation of Freeboard for Steamer, Sailing Ship , Tanker					Port of Survey <u>Rotterdam</u>
having <u>complete Superstructure with tonnage opening</u>					Date of Survey <u>during lengthening repairs</u>
(Type of Superstructures.)					Name of Surveyor <u>D. Leunenburg</u>
Ship's Name <u>"BOSCHFONTEIN"</u> <u>"de NIEUWKERK"</u>	Nationality and Port of Registry <u>Dutch</u> <u>Rotterdam</u>	Official Number <u>1</u>	Gross Tonnage <u>?</u>	Date of Build <u>1928/10</u>	
Moulded Dimensions: Length <u>134.52</u> Breadth <u>18.06</u> Depth <u>9.449</u>					Particulars of Classification <u>+100 A1</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>13550 - M³</u> tons					<u>with freeboard</u>
Coefficient of fineness for use with Tables <u>.695</u>					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>9.449</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>8.33(9.459 - 8.968) 50 = 61.23</u>	Moulded Breadth (B) <u>18.06</u>
Stringer plate <u>.010</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>361</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>25</u>
Depth for Freeboard (D) = <u>9.459</u>		Difference <u>deficient 336</u>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{336}{4} \times .0076 = 11.1$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>5.49</u>	<u>5.49</u>	<u>2290</u>		<u>5.49</u>
„ overhang	<u>.82</u>	<u>.41</u>	<u>and</u>		<u>.41</u>
R.Q.D. enclosed			<u>above</u>		
„ overhang			<u>it</u>		
Bridge enclosed					
„ overhang aft					
„ overhang forward					
F'cle enclosed	<u>126.58</u>	<u>126.58</u>	<u>do.</u>		<u>126.58</u>
„ overhang					
Trunk aft					
„ forward		<u>1/2 diff</u>			
Tonnage opening aft	<u>1.63</u>	<u>1.02</u>			<u>1.02</u>
„ „ forward					
Total	<u>134.52</u>	<u>133.50</u>			<u>133.50</u>

Standard Height of Superstructure <u>2290</u>
„ „ R.Q.D. <u>1067</u>
Deduction for complete superstructure <u>1067</u>
Percentage covered $\frac{S}{L} =$ <u>100</u>
„ „ $\frac{S_1}{L} =$ <u>99.24</u>
„ „ $\frac{E}{L} =$ <u>99.24</u>
Percentage from Table, Line A. (corrected for absence of forecastle (if required)) <u>C.S.S.</u>
Percentage from Table, Line B. <u>99.06</u>
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = $.9906 \times 1067 = 1057$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>1375</u>	1		<u>1375</u>	<u>1372</u>	<u>1372</u>	1		<u>1372</u>
$\frac{1}{2}$ L from A.P.	<u>612</u>	4		<u>2444</u>	<u>719</u>	<u>719</u>	4		<u>2876</u>
$\frac{2}{3}$ L „	<u>153</u>	2		<u>306</u>	<u>66</u>	<u>66</u>	2		<u>132</u>
Amidships		4					4		
$\frac{2}{3}$ L from F.P.	<u>305</u>	2		<u>610</u>	<u>668</u>	<u>668</u>	2		<u>1336</u>
$\frac{1}{2}$ L „	<u>1221</u>	4		<u>4884</u>	<u>1890</u>	<u>1890</u>	4		<u>7560</u>
F.P.	<u>2749</u>	1		<u>2749</u>	<u>3113</u>	<u>3113</u>	1		<u>3113</u>
Total				<u>12368</u>					<u>16389</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4021}{18} \times .25 = 1156$

If limited on account of midship superstructure.

Mean actual sheer aft = excess

Mean standard sheer aft

Mean actual sheer forward = excess

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = C.S.S.

„ „ aft of „ = C.S.S.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.695 + .68}{1.36} = \frac{1.375}{1.36}$
Depth to Freeboard Deck = <u>9.459</u>	$\Delta = \frac{14189 \text{ m}^3}{1000} = 14.189$	Depth Correction <u>123</u>
Summer freeboard = <u>1.180</u>	$T = 19.67$	Deduction for superstructures <u>1067</u>
Moulded draught (d) = <u>8.279</u>	Deduction = $\frac{\Delta}{40T} \text{ inches cm} = 18$	Sheer correction <u>56</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \text{ inches} = 17.5 \text{ cm}$		Round of Beam correction <u>1</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships
		Other corrections, scantlings, etc.
		Summer Freeboard = <u>1178</u>

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

Tropical Fresh Water Line above Centre of Disc	<u>35 cm</u>	Tropical Fresh Water Freeboard	<u>83</u>
Fresh Water Line „ „	<u>18</u>	Fresh Water „ „	<u>100</u>
Tropical Line „ „	<u>17</u>	Tropical „ „	<u>101</u>
Winter Line below „ „	<u>17</u>	Winter „ „	<u>135</u>
Winter North Atlantic Line „ „		Winter North Atlantic „ „	

30 OCT 1934

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For freeboards approved by Dutch authorities see form C/12(c) dated 9.11.34

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	On freeboard deck				On shelter deck				
	No. I	No. II	No. III	No. IV	No. I	No. II	No. III	No. IV	
Dimensions of Hatchway	29'3" x 19'0"	32'3" x 19'	21'6" x 19'	24'2" x 19'0"	29'3" x 19'	32'3" x 19'0"	21'6" x 19'0"	24'2" x 19'0"	
COAMINGS	Height above Deck	2'9" x 3 1/2" x 4'8" for all hatches front deck.				2'6"	No 11 Hatch Trunkhead to top of Coal Dk. and at bridge deck		
	Thickness	equal 8 1/4" equal				4 1/4"	Coaming 16" x 4 1/4" filled inside trunk. 50 as to keep hatch flush on coal dk.		
	Stiffeners	equal				2-3 x 3 x 4 1/4"	equal		
	Brackets, Stays	equal				2-3 x 3 x 4 1/4"	equal		
HATCH BEAMS	Number	5	5	3	4	5	5	3	4
	Spacing	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"	equal 8 1/4"
	Scantling and Sketch	20" x 48"	20" x 40"	18" x 36"	20" x 40"	18" x 36"	20" x 40"	18" x 36"	20" x 40"
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
HATCH COVERS	Material	Pine for all hatches.				2 1/2" for all hatches.			
	Thickness	3 1/4"	3 1/2"	3 1/4"	3 1/2"	3 1/4"	3 1/2"	3 1/4"	3 1/2"
	How fitted	Longitudinal				3" for all hatches.			
	Bearing Surface	3" for all hatches.				3" for all hatches.			
Spacing of Cleats		not exceeding 24" for all hatches.							
Number of Tarpaulins		2 for freeboard and 3 for shelter deck hatches.							

Particulars of fiddle, funnel and ventilator coamings:— All parts above bridge when exposed good.

Particulars of Flush Bunker Scuttles:— None.

Particulars of Companionways:— All inside superstructure deck and good.

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

On Shelter Dk. 20" and 24" diam Coamings 30" x 40" 30" x 36" Wood plugs and canvas covers.

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

All air pipes on shelter deck for 20" and 24" diam 18" x 24" and 30" x 36" Closing arrangements in order.

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

Bunkers for oil fuel.

Particulars of Scuppers and Sanitary Discharge Pipes —

Tonnage well and shelter deck hatches roofers all filled with clams. All sanitary discharge pipes in order and fitted with storm valves (fitted from bridge deck). Freeing ports in tonnage well closed.

Particulars of Side Scuttles:—

None below freeboard deck and in shelter deck of substantial construction and fitted with hinged steel dead lights.

Particulars of Guard Rails:—

On Shelter deck bulwark steel height 4'0" 9 stanchions 7' x 40" x 5'4" apart.

Particulars of Gangways, Lifelines, etc.:—

Lifelines available for 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	86'	4'0"	4'9" x 1'98"	3	20.78	0.796 m ²
Forward Well	133'	4'0"	1400 x 450	4	27.17	1.256 m ²

State position of each freeing port ... After Well:— See sketch.
(F. and A. position and height above deck edge) Forward Well:—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— no shutters, one horizontal bar.
Additional area where sheer is less than standard.

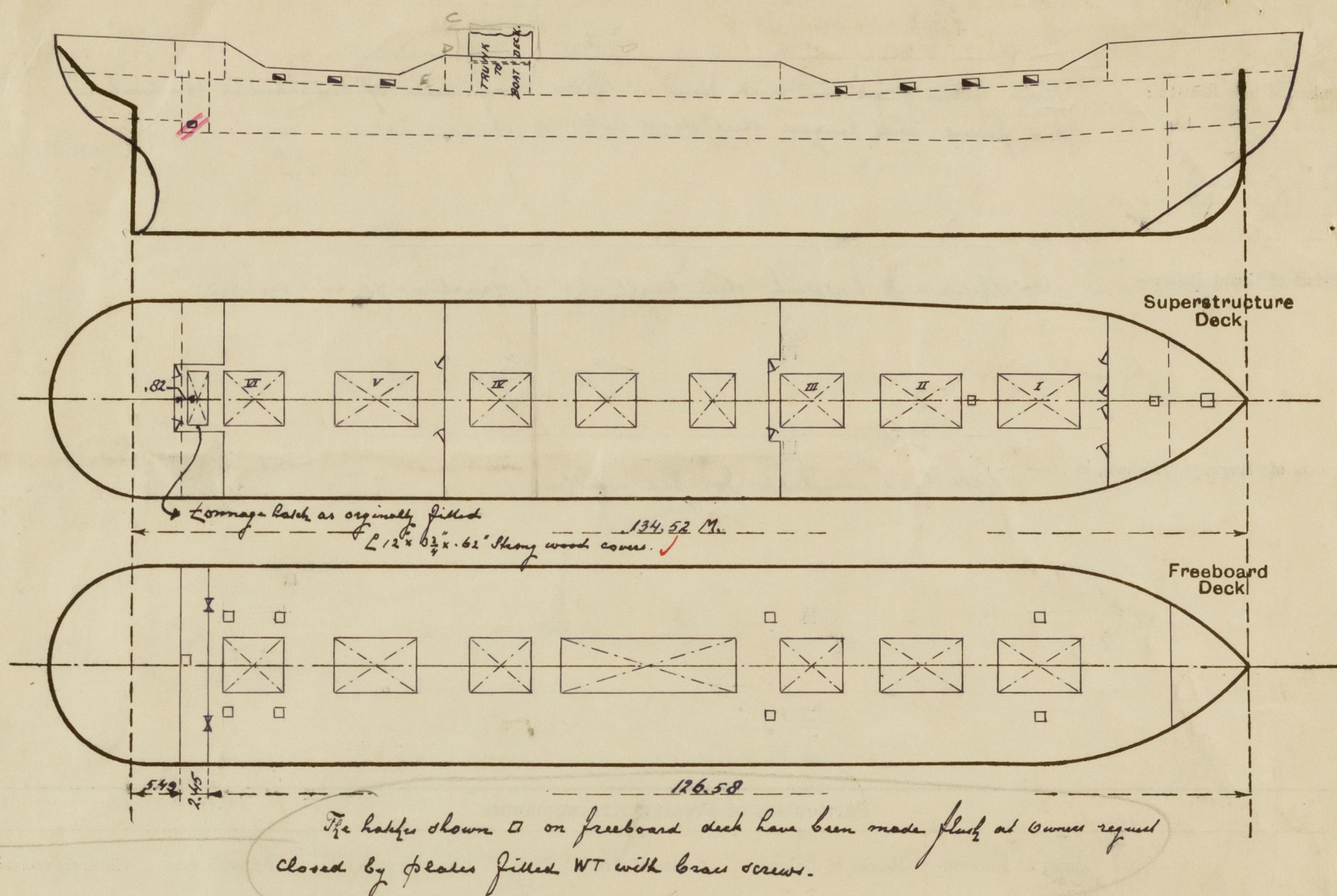
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
After Bulkhead	28"	26"	4 1/2" x 3 x 32"	30"	r	r	r	
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forward Bulkhead	26"	26"	5 1/2" x 3 x 36"	30"	r	1100 x 1230	600	
Trunk, Aft								
Trunk, Forward								
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	36"	26"	3 1/2" x 3 x 36"	32"	r	r	r	
Deckhouses on Flush Deck Ships								

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

After Bulkhead	None
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forward Bulkhead	2 1/4" Stormboards in riveted 2 bars full height.
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	None.
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:—

This vessel has been lengthened at the bow and Bridge extended aft.
Motor Engines fitted.

Oil fuel side bunkers fitted and all coal openings in sides and decks permanently closed. No I. hatch lengthened all in accordance with the approved plans.

See London letter. 19/1. 1933. m. 8/6. 1933. m. 17/8. 1933.

Builder's name and yard number *Machine fabriek & Scheepswerk J. P. Smits jr. Rotterdam*

Names of sister ships *K*

Owners Verenigde Nederlandsche Scheepv. maats.

Fee ~~15~~ 204.00

: Will be. Received by me

2 Levensburg zu Herwerden