

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. 25918
 (For London Office only.)

21 DEC 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having R.Q.D. BRIDGE and FORECASTLE

Port of Survey Rotterdam

Date of Survey 9 Dec 1932

Name of Surveyor A. P. J. H.

Particulars of Classification + 100A1

Ship's Name S.S. EXPORT Nationality and Port of Registry DUTCH Official Number 760 Gross Tonnage 1918.7 Date of Build 1918

Moulded Dimensions: Length 55.041 Breadth 8.534 Depth 4.420 Moulded displacement at moulded draught = 85 per cent. of moulded depth 1292 tons

Coefficient of fineness for use with Tables 731

Depth for Freeboard (D) 4.420

Depth correction

(a) Where D is greater than Table depth (D - Table depth) R = 8.33 (4.429 - 3.676) 13.92 = + 87

(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 0

Round of Beam correction

Moulded Breadth (B) 8.534

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{8.534 \times 12}{50} = 2.048$

Ship's Round of Beam = 1.91

Difference 20

Restricted to 0

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{20}{4} \times .237 = -1.185$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...	<u>15.77</u>	<u>15.77</u>	<u>1.219</u>		<u>15.77</u>
„ overhang ...	<u>19.56</u>	<u>19.56</u>	<u>2.209</u>		<u>19.56</u>
Bridge enclosed ...	<u>6.54</u>	<u>6.54</u>	<u>2.031</u>		<u>6.54</u>
„ overhang aft ...	<u>1.19</u>	<u>1.19</u>			<u>1.19</u>
„ overhang forward ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ forward ...					
Total ...	<u>42.26</u>	<u>42.06</u>			<u>42.06</u>

Standard Height of Superstructure	<u>1830</u>
„ „ R.Q.D.	<u>1077</u>
Deduction for complete superstructure	<u>612</u>
Percentage covered $\frac{S}{L} =$	<u>76.65%</u>
„ „ $\frac{S_1}{L} =$	<u>76.29%</u>
„ „ $\frac{E}{L} =$	<u>76.29%</u>
Percentage from Table, Line A.	
(corrected for absence of forecastle (if required))	<u>70.74%</u>
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = $612 \times 70.74 =$	<u>433</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>713</u>	1		<u>713</u>	<u>0.063</u>	<u>1005</u>	1		<u>1005</u>
$\frac{1}{8}$ L from A.P. ...	<u>317</u>	4		<u>1268</u>	<u>276</u>	<u>408</u>	4		<u>1632</u>
$\frac{3}{8}$ L „ ...	<u>79</u>	2		<u>158</u>	<u>92</u>	<u>184</u>	2		<u>184</u>
Amidships ...		4					4		
$\frac{3}{8}$ L from F.P. ...	<u>158</u>	2		<u>316</u>	<u>304</u>	<u>304</u>	2		<u>608</u>
$\frac{1}{8}$ L „ ...	<u>634</u>	4		<u>2536</u>	<u>914</u>	<u>914</u>	4		<u>3656</u>
F.P. ...	<u>1427</u>	1		<u>1427</u>	<u>1879</u>	<u>1879</u>	1		<u>1879</u>
Total ...				<u>6418</u>					<u>8964</u>

Mean actual sheer aft = Excess

Mean standard sheer aft = Excess

Mean actual sheer forward = Excess

Mean standard sheer forward = Excess

Length of enclosed superstructure forward of amidships = .14

„ „ aft of „ = .50

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{2546}{18} (.75 - .3832) = -52.7$$

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<u>505</u>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<u>524</u>
Depth to Freeboard Deck = <u>4.429</u>	$\Delta =$	Depth Correction ...	<u>87</u>
Summer freeboard = <u>.130</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ...	<u>433</u>
Moulded draught (d) = <u>4.299</u>	T =	Sheer correction ...	<u>52</u>
Deduction for Tropical freeboard and addition for Winter freeboard = <u>9</u>	Deduction = $\frac{\Delta}{40 T}$ inches = <u>9</u>	Round of Beam correction ...	<u>1</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>5</u>		Correction for Thickness of Deck amidships ...	<u>-</u>
		Other corrections, scantlings, etc. ...	<u>-</u>
		Summer Freeboard = <u>125</u>	<u>13</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>17</u>	Tropical Fresh Water Freeboard ...	<u>4</u>
Fresh Water Line „ „ ...	<u>9</u>	Fresh Water „ „ ...	<u>4</u>
Tropical Line „ „ ...	<u>8</u>	Tropical „ „ ...	<u>5</u>
Winter Line below „ „ ...	<u>9</u>	Winter „ „ ...	<u>22</u>
Winter North Atlantic Line „ „ ...	<u>14</u>	Winter North Atlantic „ „ ...	<u>27</u>

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Particulars of fiddle, funnel and ventilator coverings:— Highlight strongly constructed of steel with steel
flap, funnel and ventilators in efficient condition
grating closed by strong ^{hinged} steel covers. -
Hinged?

Particulars of Companionways:— One companion on fore-castle built of steel with steel
hinged door 3'-6" x 2'-0" manipulated from both sides, sill 12" high.
One companion on bridge-deck built of steel with wood door
5'-5" x 2'-0" opened from both sides 1½" thick sill 13" /

2 vents on well deck forward 25" diam 33" high coaming .40 led to No. 1 hold
2 vents on bridge deck 15" 33" " " .40 " " No 2
All ventilators constructed in accordance with Rules and coamings
closed by wood plugs and canvas covers.

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

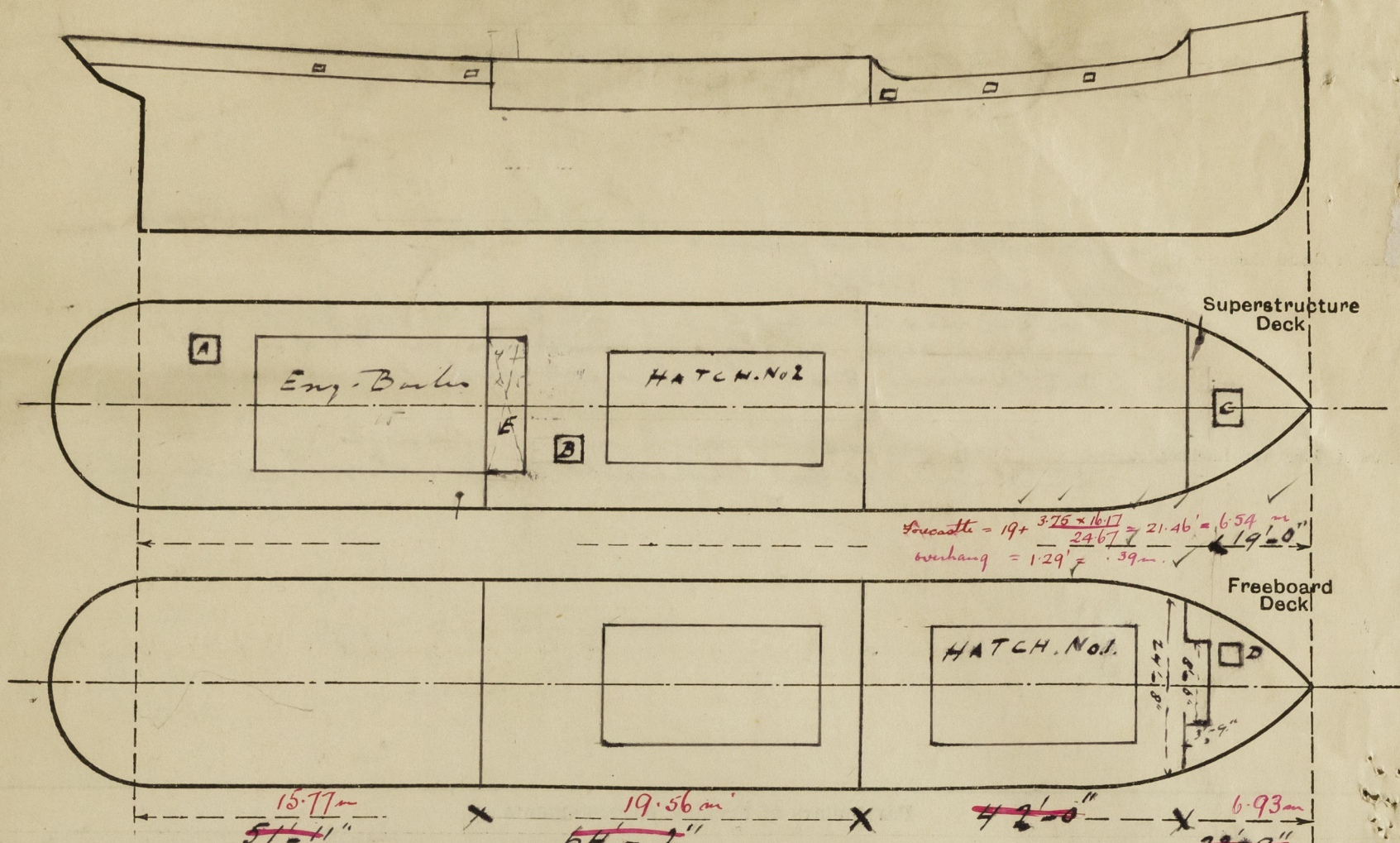
One shut air pipe on forecastle deck	18" high	3 1/2" diam from forepeak to trunk	
One " " " " " " " " " "	18" " " " " " " "	" " " " " " " "	DB trunk No 1
Two " " " " " " " " " "	18" " " " " " " "	" " " " " " " "	" " " " " " " "
One " " " " " " " " " "	18" " " " " " " "	" " " " " " " "	" " " " " " " "

Wood plugs provided

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Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead ...	<i>no openings</i> ✓
Bridge, After Bulkhead	✓
Bridge, Forward Bulkhead	<i>no openings</i> ✓
Forecastle Bulkhead	<i>Steel hinged doors operated from both sides</i> ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	<i>Steel hinged doors operated from both sides</i> ✓
Exposed Machinery Casings on Super-structure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	

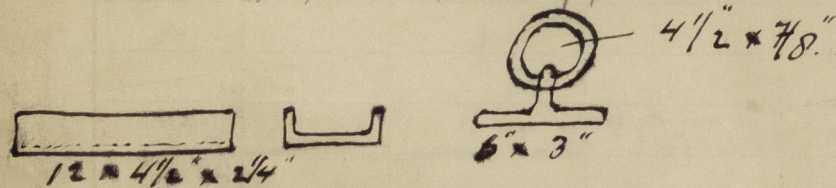
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



- A one steel hatch 25' x 26" by 21" high with wood cover 3" thick, cleats 15" spaced, & tarpaulins to
 B one steel companion with door 5'-5" by 22" thick 1 1/2" manipulated from both sides, all
 C one steel hatch 23' x 30" coaming 13" x 3" x 32 covered by steel hinge door secured down
 D one bunker hatch 4'-3" x 15'-0" by 5'-0" above bridge deck, cover 2 1/2" fitted longitudinally, steel
 E one steel hatch 4'-3" x 15'-0" by 5'-0" above bridge deck, cover 2 1/2" fitted longitudinally, steel
 of cleats 30" with 2 tarpaulins and lashings

State any special features in the construction of the ship:— Particulars taken while vessel lying afloat.

The owner proposes to carry lumber deck cargo in the well and on the bridge deck. Wood uprights fitted in strong channel bars spaced 9'-0" and about 5'-0" apart. Bulwark stanchions and profiles are fitted with holes to receive lashings for the uprights. It is the practice to use 3" steel wire ropes for overall lashing passing through ring plates rivetted to decks and in equal number to that of the uprights. In connection with the steel wire lashings short lengths of 7/8" open link chain are used each fitted with a stretching screw and sliphook. The whole lashing arrangement guarantees a safe and prompt releasing of the deck cargo at any time together with unlashings. Double bottom tanks have a watertight hull on frame 32 tall 90. Permanent bulwarks are fitted. Access will be available at all times to the parts necessary for crew and working the vessel. Life lines will be fitted to the uprights 4'-6" above the deck cargo. The steering leads are all on the R.L.D. also the hand steering gear. Steering protection. — machinery space only.



A displacement scale has been enclosed with this report and is to be returned to this office.

Builder's name and yard number Scheepswerven van H. H. Bodeaver, N. V. Yard No. 201.

Names of sister ships ✓

Owners Rotterdam Londen Lijn, N.V.

Fee 21.00
Exp 2.00

Received by me

A. P. Rijk



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