

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. *24589*
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11 JUN '36

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <i>Rotterdam</i>
having <i>POOP, BRIDGE AND FORECASTLE</i>					Date of Survey <i>Building</i>
(Type of Superstructures.)					Name of Surveyor <i>B. Heunenburg</i>
Ship's Name <i>M.T. "ERINNA"</i>	Nationality and Port of Registry <i>DUTCH</i> <i>'s GRAVENHAGE.</i>	Official Number <i>959</i>	Gross Tonnage <i>6232.73</i>	Date of Build <i>1936</i>	Particulars of Classification <i>+ 100 A1 - completed</i> <i>Carrying Pets in bulk.</i>
Moulded Dimensions: Length <i>129.54 M.</i> Breadth <i>16.54 M.</i> Depth <i>9.449 M.</i>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>13330 M³</i> <i>tons</i>					
Coefficient of fineness for use with Tables <i>.445</i>					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>9.449</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>8.33 (9.464 - 8.636) / 30 = (+) 2.08 %</i>	Moulded Breadth (B) <i>16.54</i>
Stringer plate <i>18</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 100}{50} = 331 \frac{1}{4} \%$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>343</i>
Depth for Freeboard (D) = <i>9.464</i>		Difference <i>EXCESS 12</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{12}{4} \times .5803 = (+) 2 \frac{1}{4} \%$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>SEE P.4.</i>	<i>24.22</i>	<i>24.22</i>	<i>23.41</i>		<i>24.22</i>	Standard Height of Superstructure <i>22.90</i>
" overhang ...						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure <i>1064</i>
" overhang						Percentage covered $\frac{S}{L} = 41.94 \%$
Bridge enclosed <i>SEE P.4.</i>	<i>12.45</i>	<i>12.45</i>	<i>22.79</i>	<i>22.79/22.90</i>	<i>12.39</i>	" " $\frac{S_1}{L} = 41.94 \%$
" overhang aft						" " $\frac{E}{L} = 41.93 \%$
" overhang forward						Percentage from Table, Line A. <i>TANKER: 32.93</i>
F'cle enclosed	<i>14.41</i>	<i>14.41</i>	<i>13.41</i>		<i>14.41</i>	(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft						Deduction = <i>.3293 x 1064 = 351 1/4</i>
" forward						
Total	<i>54.38</i>	<i>54.38</i>			<i>54.32</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<i>1333</i>	1		<i>1333</i>	<i>1361</i>	<i>1361</i>	1		<i>1361</i>	Mean actual sheer aft = <i>EXCESS</i>
$\frac{1}{8}$ L from A.P. ...	<i>592</i>	4		<i>2368</i>	<i>604</i>	<i>604</i>	4		<i>2416</i>	Mean actual sheer forward = <i>EXCESS</i>
$\frac{2}{8}$ L " ...	<i>148</i>	2		<i>296</i>	<i>154</i>	<i>154</i>	2		<i>314</i>	Mean standard sheer forward
Amidships ...	-	4		-			4			Length of enclosed superstructure forward of amidships =
$\frac{3}{8}$ L from F.P. ...	<i>296</i>	2		<i>592</i>	<i>298</i>	<i>298</i>	2		<i>596</i>	" " aft of " = <i>TANKER</i>
$\frac{4}{8}$ L " ...	<i>1185</i>	4		<i>4740</i>	<i>1194</i>	<i>1194</i>	4		<i>4788</i>	
F.P. ...	<i>2666</i>	1		<i>2666</i>	<i>2740</i>	<i>2740</i>	1		<i>2740</i>	
Total ...				<i>11995</i>					<i>12215</i>	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{220}{18} (.45 - .2098) = (-) 4 \frac{1}{4} \%$$

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.

$$\begin{aligned} \text{Depth to Freeboard Deck} &= 9.464 \\ \text{Summer freeboard} &= 1.410 \\ \text{Moulded draught (d)} &= 4.454 \end{aligned}$$

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{48} \text{ inches} = 16 \text{ c.m.}$$

 Addition for Winter North Atlantic Freeboard (if required) = $16 + 11 = 27 \text{ c.m.}$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 13006 \text{ TONS}$$

Tons per immersion at summer load water line

$$T = 18.45$$

Deduction = $\frac{\Delta}{40 T}$

$$= 14 \text{ c.m.}$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

$$\text{Correction for coefficient} = \frac{.445 + .68}{1.36} = \frac{1.455}{1.36}$$

	+	-
Depth Correction ...	<i>208</i>	
Deduction for superstructures ...		<i>351</i>
Sheer correction ...		<i>4</i>
Round of Beam correction ...		<i>2</i>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		
	<i>208</i>	<i>360</i>

$$\text{Summer Freeboard} = 1412$$

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

Tropical Fresh Water Line above Centre of Disc	<i>33 c.m.</i>
Fresh Water Line	<i>14</i>
Tropical Line	<i>16</i>
Winter Line below	<i>16</i>
Winter North Atlantic Line	<i>24</i>

Tropical Fresh Water Freeboard	<i>138</i>
Fresh Water	<i>154</i>
Tropical	<i>135</i>
Winter	<i>184</i>
Winter North Atlantic	<i>198</i>

16 JUN 1936

 MARKING FORM
 RECEIVED 15/1/41

 MARKING FORM
 RECEIVED 22 JUN 1936

 Lloyd's Register
 Classification

002858-002869-0026 1/2

Erinna

Particulars of fiddle, funnel and ventilator coamings:— Fiddle casing, funnel and ventilator in good condition ✓
Steel strong motor room skylight, cover on grating shut hinged ✓

Particulars of Companionways:— Steel Pump Room companion ways 8'5" x 13'10" x 7'6" high
Hinged Doors as on the shell WT steel. sill 19" capable of being operated from both sides. ✓

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

On forecastle deck 5" & 36" in height) fitted with gauge and canvas covers. ✓
On poop deck 5" and 2 1/2" - 30" " ")
On freeboard deck for ballast tanks lead up fore and main mast -

Particulars of Gangway Cargo and Coaling Ports:— *None* ✓

On Forecastle sanitary pipes 5" and 4" diam below 2nd deck ✓
 " Bridge " " 4"-3" 2" " above foreboard bk } All fitted with cast steel valves and storm valves
 " Poop " " 4"-3"-2" " below foreboard bk } to ship side, and sluice valves in pipe line for sanitary pipe
 under poop ✓

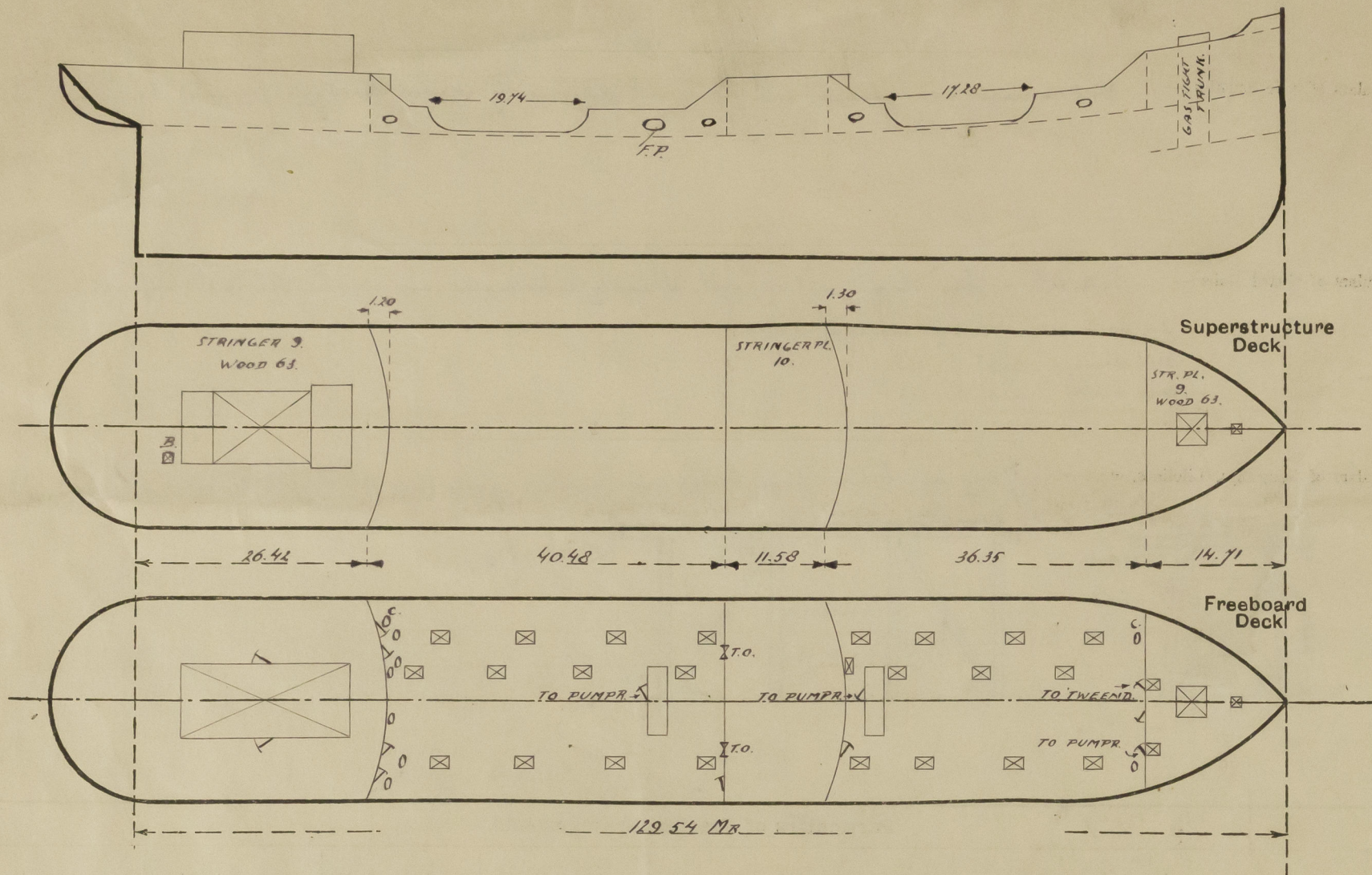
Particulars of Guard Rails:— Bulwark as per sketch - 3' 4" in height. efficiently constructed - and supported upon rail standards 4' 5" apart 3. rails, $\frac{5}{8}$ " dia ✓

On forecable	3' 6" high	3' 9" apart	3. rails	✓
On bridge	3' 6" "	4' 0" "	3. "	✓
On prop.	3' 6" "	4' 3" "	3. "	✓

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	<i>Vertical plating</i>	<i>11$\frac{7}{8}$"</i>	<i>230x90x12 B.A. 3 division 6ls.</i>	<i>770-825$\frac{1}{4}$"</i>	<i>Bottom brackets top to beams.</i>	<i>1300x760</i>	<i>610</i>	<i>2286 ✓</i>
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	<i>" "</i>	<i>7.5$\frac{1}{4}$"</i>	<i>120x75x9-A. 2 division 6ls.</i>	<i>760$\frac{1}{2}$"</i>	<i>none</i>	<i>1300x950</i>	<i>610</i>	<i>2286 ✓</i>
Bridge, Forward Bulkhead	<i>" "</i>	<i>11$\frac{1}{4}$"</i>	<i>230x90x12 B.A. 2 division 6ls.</i>	<i>825$\frac{1}{4}$"</i>	<i>bottom brackets top to beams</i>	<i>1525x760</i>	<i>500</i>	<i>2286 ✓</i>
Forecastle Bulkhead	<i>610x9$\frac{1}{4}$"</i>	<i>7.5$\frac{1}{4}$"</i>	<i>120x75x8 A.</i>	<i>760$\frac{1}{2}$"</i>	<i>none</i>	<i>1375x760</i>	<i>610</i>	<i>2286 ✓</i>
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks	<i>650x8$\frac{1}{4}$"</i>	<i>7.5$\frac{1}{4}$"</i>	<i>100x65x8 A.</i>	<i>660$\frac{1}{4}$"</i>	<i>Brackets on top.</i>	<i>none</i>		<i>2440 ✓</i>
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	One WT hinged doors operated from both sides. ✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	Steel portable plates fastened with hook bolts 1" in diam spaced 360°/in apart. ✓
Bridge, Forward Bulkhead	Steel WT hinged doors operated from both sides. ✓
Forecastle Bulkhead	2 steel WT hinged doors operated from both sides. entrance to them from pump room forward ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	8 leak doors for accommodation " " " " " ✓
Exposed Machinery Casings on Super-structure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	no openings - ✓
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:—



POOP: $\frac{26.42}{1.20 \times \frac{2}{3} = .80} = 27.22$ EQUIV. ✓

BRIDGE: $\frac{11.58}{1.30 \times \frac{2}{3} = .87} = 12.45$ EQUIV. ✓

State any special features in the construction of the ship:— All hatches for Cofferdams channels 10" plate 2 WT bolt fastened. ✓
60 forecabin 2 poop two small hatches 59" plate 2 WT fastened by turn of bolts ✓

Builder's name and yard number Konink De Schelde Flushing No 203. 202
Names of sister ships "Eulota" and "Extrema".
Owners N.V. Petroleum Maatschappij "La Corona"
Fee 264 : : Received by me R. Heemantburg