

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. **13007**
(For London Office only.)

20 OCT 1932

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
having *R.Q.D. Bridge and Forecastle* RB

(Type of Superstructures.)

Ship's Name "LAPPOYIA"	Nationality and Port of Registry <i>Finland Helsingfors</i>	Official Number 622	Gross Tonnage 1172	Date of Build 1898-4
----------------------------------	--	-------------------------------	------------------------------	--------------------------------

Port of Survey *Helsingfors*
Date of Survey *14th Oct 1932*
Name of Surveyor *Opinion Tylman*
Particulars of Classification *8 100 A 11
55 H/S 2 10 3 3 3
55 H/S 10.2-31*

Moulded Dimensions: Length *69.95* Breadth *10.376* Depth *4.889 met*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *2356 m³*
Coefficient of fineness for use with Tables *.781*

Depth for Freeboard (D) Moulded depth ... <i>4882</i> Stringer plate ... <i>122</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>✓</i> Depth for Freeboard (D) = <i>4901</i>	Depth correction (a) Where D is greater than Table depth $(D - \text{Table depth}) R = 8.33 (4901 - 4871) 17.70$ $= +34$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ <i>✓</i> If restricted by superstructures <i>✓</i>	Round of Beam correction Moulded Breadth (B) <i>10.376</i> Standard Round of Beam = $\frac{B \times 2}{50} =$ <i>207</i> Ship's Round of Beam = <i>248</i> Difference <i>41 excess</i> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{41}{4} \times .287 = -3$
---	---	--

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...	<i>34.08</i>		<i>1.27</i>		
R.Q.D. enclosed ...	<i>23.97</i>	<i>24.08</i>	<i>1.26</i>		<i>24.08</i>
" overhang ...					
Bridge enclosed ...	<i>18.18</i>	<i>18.18</i>	<i>2.18</i>		<i>18.18</i>
" overhang aft ...					
" overhang forward ...	<i>7.30</i>	<i>7.30</i>	<i>2.18</i>		<i>7.30</i>
F'cle enclosed ...	<i>1.37</i>	<i>.41</i>	<i>2.18</i>		<i>.41</i>
" overhang ...	<i>1.85</i>				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<i>50.39</i>	<i>49.97</i>			<i>49.97</i>

Standard Height of Superstructure: *1830*
" " R.Q.D. *1179*
Deduction for complete superstructure *737*
Percentage covered $\frac{S}{L} = 71.89\%$
" " $\frac{S_1}{L} = 71.30\%$
" " $\frac{E}{L} = 71.30\%$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) *64.60%*
Interpolation for bridge less than 2L (if required)
Deduction = $737 \times .646 = 476$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>838</i>	1		<i>838</i>	<i>622</i>	<i>662</i>	1		<i>662</i>
$\frac{1}{2}L$ from A.P. ...	<i>372</i>	4		<i>1488</i>	<i>281</i>	<i>294</i>	4		<i>1176</i>
$\frac{3}{4}L$ " ...	<i>92</i>	2		<i>186</i>	<i>170</i>	<i>70</i>	2		<i>140</i>
Amidships ...	<i>✓</i>	4		<i>✓</i>	<i>✓</i>	<i>✓</i>	4		<i>✓</i>
$\frac{3}{4}L$ from F.P. ...	<i>186</i>	2		<i>372</i>	<i>180</i>	<i>180</i>	2		<i>360</i>
$\frac{1}{2}L$ " ...	<i>744</i>	4		<i>2976</i>	<i>722</i>	<i>722</i>	4		<i>2888</i>
F.P. ...	<i>1676</i>	1		<i>1676</i>	<i>1651</i>	<i>1651</i>	1		<i>1651</i>
Total ...				<i>7536</i>					<i>6877</i>

Mean actual sheer aft = *Deficient* $> 75\%$ standard *✓*
Mean standard sheer aft
Mean actual sheer forward = *Deficient*
Mean standard sheer forward
Length of enclosed superstructure forward of amidships = *✓*
" " aft of " = *✓*
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{659}{18} \left(\frac{75 - 3594}{2 \times 1179} \right) = +14$
If limited on account of midship superstructure. *✓*
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. *✓*

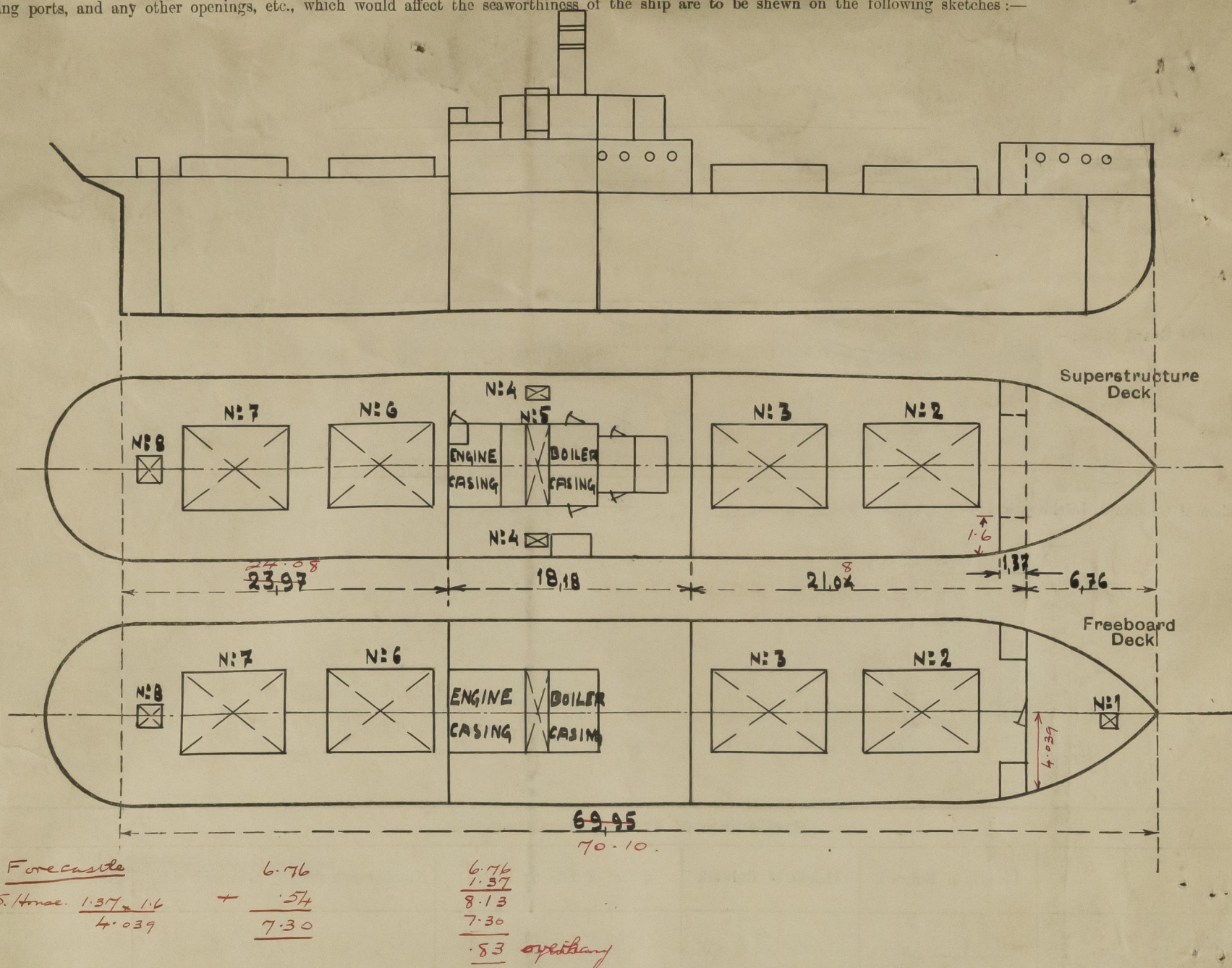
Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <i>4901</i> Summer freeboard = <i>347</i> Moulded draught (d) = <i>4554</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = <i>95</i> Addition for Winter North Atlantic Freeboard (if required) = <i>51</i>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40T}$ inches = <i>95</i>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{75 + .68}{1.36} = \frac{1461}{1360}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td><i>34</i></td> <td><i>✓</i></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td><i>-</i></td> <td><i>476</i></td> </tr> <tr> <td>Sheer correction ...</td> <td><i>14</i></td> <td><i>✓</i></td> </tr> <tr> <td>Round of Beam correction ...</td> <td><i>-</i></td> <td><i>3</i></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td><i>-</i></td> <td><i>-</i></td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td><i>-</i></td> <td><i>-</i></td> </tr> <tr> <td></td> <td><i>48</i></td> <td><i>479</i></td> </tr> </table> Summer Freeboard = <i>431</i>		+	-	Depth Correction ...	<i>34</i>	<i>✓</i>	Deduction for superstructures ...	<i>-</i>	<i>476</i>	Sheer correction ...	<i>14</i>	<i>✓</i>	Round of Beam correction ...	<i>-</i>	<i>3</i>	Correction for Thickness of Deck amidships ...	<i>-</i>	<i>-</i>	Other corrections, scantlings, etc. ...	<i>-</i>	<i>-</i>		<i>48</i>	<i>479</i>
	+	-																								
Depth Correction ...	<i>34</i>	<i>✓</i>																								
Deduction for superstructures ...	<i>-</i>	<i>476</i>																								
Sheer correction ...	<i>14</i>	<i>✓</i>																								
Round of Beam correction ...	<i>-</i>	<i>3</i>																								
Correction for Thickness of Deck amidships ...	<i>-</i>	<i>-</i>																								
Other corrections, scantlings, etc. ...	<i>-</i>	<i>-</i>																								
	<i>48</i>	<i>479</i>																								

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

Tropical Fresh Water Line above Centre of Disc ...	<i>.190</i>	Tropical Fresh Water Freeboard ...	<i>252</i>
Fresh Water Line " " ...	<i>.95</i>	Fresh Water " " ...	<i>252</i>
Tropical Line " " ...	<i>.95</i>	Tropical " " ...	<i>442</i>
Winter Line below " " ...	<i>.95</i>	Winter " " ...	<i>473</i>
Winter North Atlantic Line " " ...	<i>.146</i>	Winter North Atlantic " " ...	<i>473</i>

002157-002164-0148²1/2

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 shown on the following sketches:—



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

The sheer has been measured afloat, the draught being forward 2.34 met and aft 4.01 met.

The Owners desires to have the freeboard computed in accordance with the International Load Line Convention, or to have the old freeboard retained, which of these is more favourable. *Not for copy*

Builder's name and yard number

Carmichael & Co. Ltd., Glasgow

Names of sister ships

Owners

Finns Ångfartygs Aktiebolaget

Fee £

8 : 10 : 0

Received by me

Oliver Taylor



© 2020

Lloyd's Register Foundation