

EXT

17/10/32

pt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 13253
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having ROD. B & F.

(Type of Superstructures.)

Ship's Name HANNAH Nationality and Port of Registry Swan Official Number 1898 Gross Tonnage 2390 Date of Build 1898

Moulded Dimensions: Length 230 Breadth 34 Depth 16.75
Moulded displacement at moulded draught = 85 per cent. of moulded depth 2390 tons
Coefficient of fineness for use with Tables .751

Port of Survey 1-3-32
Date of Survey 1-3-32
Name of Surveyor +100 A1.
Particulars of Classification

Depth for Freeboard (D) 16.75
Moulded depth ... 16.75
Ringer plate04
Leathering on exposed deck -
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = 16.79

Depth correction
(a) Where D is greater than Table depth
(D - Table depth) R = (16.79 - 15.33) 1.769 = +2.58
(b) Where D is less than Table depth (if allowed)
(Table depth - D) R = -
If restricted by superstructures

Round of Beam correction
Moulded Breadth (B) 34
Standard Round of Beam = $\frac{B \times 12}{50} =$ 8.16
Ship's Round of Beam = 8.50
Difference .34
Restricted to
Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.34}{4} \times .314 = -.03$

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>76.75</u>	<u>76.75</u>	<u>4'</u>	<u>-</u>	<u>76.75</u>
„ overhang ...					
Bridge enclosed ...	<u>56.25</u>	<u>56.25</u>	<u>7'</u>	<u>-</u>	<u>56.25</u>
„ overhang aft ...					
„ overhang forward ...					
„ enclosed ...	<u>27.00</u>	<u>27.00</u>	<u>7'</u>	<u>-</u>	<u>27.00</u>
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<u>160.00</u>	<u>160.00</u>			<u>160.00</u>

Standard Height of Superstructure 6.0
„ „ R.Q.D. 3.87 (3.867)
Deduction for complete superstructure 29.0
Percentage covered $\frac{S}{L} =$ 69.56%
„ „ $\frac{S_1}{L} =$ 69.56%
„ „ $\frac{E}{L} =$ 69.56%
Percentage from Table, Line A. 62.25%
(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 = 29.0 x .6225 = 18.05

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
2. ...	<u>33</u>	<u>1</u>		<u>36</u>	<u>37.60</u>		<u>1</u>		<u>37.60</u>
from A.P. ...	<u>14.7</u>	<u>4</u>		<u>16.98</u>	<u>16.98</u>		<u>4</u>		<u>67.92</u>
„ ...		<u>2</u>		<u>4.24</u>	<u>4.24</u>		<u>2</u>		<u>8.48</u>
amidships ...		<u>4</u>					<u>4</u>		
from F.P. ...		<u>2</u>			<u>8.20</u>		<u>2</u>		<u>16.40</u>
„ ...	<u>29.4</u>	<u>4</u>			<u>32.78</u>		<u>4</u>		<u>131.12</u>
P. ...	<u>66</u>	<u>1</u>			<u>75</u>		<u>1</u>		<u>75.00</u>
Total ...				<u>297</u>					<u>336.52</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{39.50}{18} \left(.75 - \frac{.3478}{2} \right) = .88$
If limited on account of midship superstructure. .88 x .728 = -.78
If limited to maximum allowance of 1½ ins. per 100 ft.

Mean actual sheer aft = Access
Mean standard sheer aft = Access
Mean actual sheer forward = Access
Mean standard sheer forward = Access
Length of enclosed superstructure forward of amidships = 57.8
„ „ aft of „ = 5.00
[NB. AP ordinate increased from 36.5 to 37.60 to make 7' excess height of ROD.]

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 16.79
Summer freeboard = 1.14
Moulded draught (d) = 15.65

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.91
Addition for Winter North Atlantic Freeboard (if required) = 2

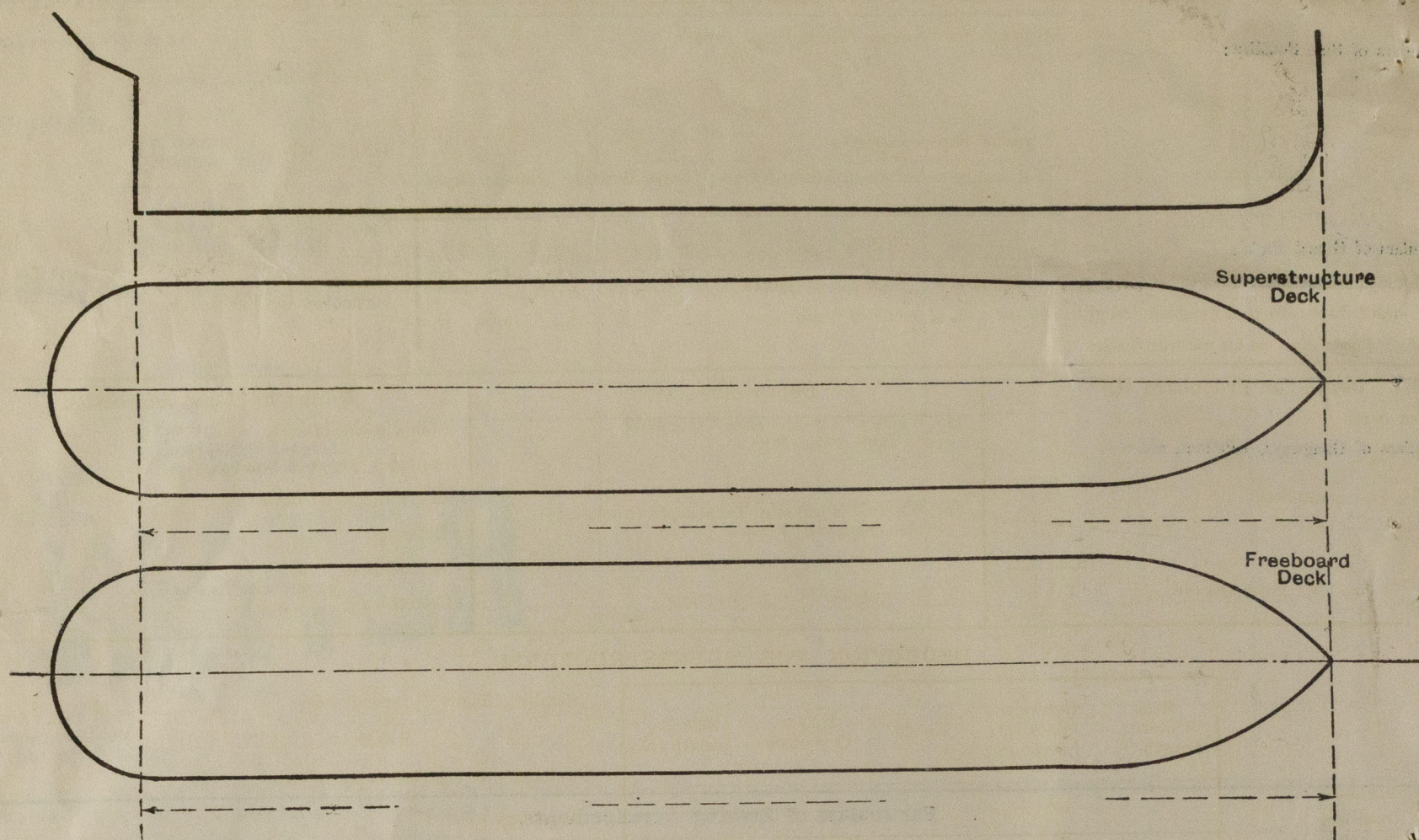
Deduction for Fresh Water.
Displacement in salt water at summer load water line
 $\Delta =$
Tons per inch immersion at summer load water line
 $T =$
Deduction = $\frac{\Delta}{40T}$ inches =

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{7.14 - 6.8}{1.36} = \frac{.34}{1.36}$
Depth Correction ... 2.58
Deduction for superstructures ... 18.05
Sheer correction78
Round of Beam correction03
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...
Summer Freeboard = 13.70

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

Tropical Fresh Water Line above Centre of Disc ...	...	Tropical Fresh Water Freeboard ...	...
Fresh Water Line „ „ ...	...	Fresh Water „ „ ...	...
Tropical Line „ „ ...	...	Tropical „ „ ...	...
Winter Line below „ „ ...	...	Winter „ „ ...	...
Winter North Atlantic Line „ „ ...	...	Winter North Atlantic „ „ ...	...

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:— Rpt. C.11.



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

$85 \times 16.75 = 14' 3"$
 Keel 8"
 14' 11"
 Depth in 14' 11" = 1530
 Load = 850
 Displacement = 2400 = 2390 tons

Builder's name and yard number

Names of sister ships

Owners

Fee £

Received by me

having

HANN

Moulded Dim

Moulded displ

Coefficient of

Depth

Moulded depth

Stringer plate

Sheathing on expos

$T \left(\frac{L-S}{L} \right) =$

Depth

Poop enclosure

overha

R.D. enclosure

overh

Bridge enclosure

overh

overh

overh

overh

Trunk aft

forwa

Tonnage op

Total

Station

A.P. ...

$\frac{1}{4}$ L from A.P. ...

$\frac{1}{4}$ L " ...

Amidships ...

$\frac{3}{4}$ L from F.P. ...

$\frac{1}{4}$ L " ...

F.P. ...

Total

Correction

If limited

Deduction for

Addition for

Atlantic F

Depth

Summ

Deduction for

Winter fre

Addition for V

required =

TIMBER



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Foundation

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