

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Port of Survey

(Type of Superstructures.)

Date of Survey

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

ENERGIE

Name of Surveyor

Moulded Dimensions: Length **150.2** Breadth **27.50** Depth **10.75**

Moulded displacement at moulded draught = 85 per cent. of moulded depth tons

Coefficient of fineness for use with Tables **assumed .70**

Particulars of Classification

Depth for Freeboard (D)

Moulded depth ... **10.75**Stringer plate ... **.03**

Sheathing on exposed deck

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

Depth for Freeboard (D) = **10.78**

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

$$(10.78 - 10.01) \times 1.155 = +.89$$

(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) **27.5**

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 6.60$$

$$\text{Ship's Round of Beam} = 7.00$$

$$\text{Difference} = .40$$

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.40}{4} \times .1917 = -.02$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	77.00	77.00	7.5	✓	77.00
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
Fore enclosed ...	25.70	25.70	7.5	✓	25.70
„ overhang30	.15			.15
Trunk aft ...		18.54	7.5	✓	18.54
„ forward ...					
Tonnage opening aft ...					
„ forward ...					
Total ...	103.00	121.39			121.39

Standard Height of Superstructure **6.00**

„ „ R.Q.D. ✓

Deduction for complete superstructure **21.02**

$$\text{Percentage covered } \frac{S}{L} = 68.58$$

$$\frac{S_1}{L} = 80.83$$

$$\frac{E}{L} = 80.83$$

Percentage from Table, ~~Line A~~ **Tanker** **76.33**
(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)

$$\text{Deduction} = 21.02 \times .7633 = -16.04$$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	25.02	1		25.02	24.00	24.00	1		24.00
$\frac{1}{8}$ L from A.P. ...	11.13	4		44.52	5.60	5.60	4		22.40
$\frac{3}{8}$ L „ ...	2.75	2		5.50	-	-	2		-
Amidships ...	-	4		-	-	-	4		-
$\frac{5}{8}$ L from F.P. ...	5.50	2		11.00	-	-	2		-
$\frac{7}{8}$ L „ ...	22.26	4		89.04	8.80	8.80	4		35.20
F.P. ...	50.04	1		50.04	43.00	43.00	1		43.00
Total ...				225.12					124.60

Mean actual sheer aft =
Mean standard sheer aft =Mean actual sheer forward =
Mean standard sheer forward =Length of enclosed superstructure forward of amidships =
L

„ „ aft of „ =

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{100.52}{18} \left(.75 - \frac{.3429}{.4071} \right) = +2.27$$

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 =

Summer freeboard =

Moulded draught (d) =

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 Δ =

Tons per inch immersion at summer load water line

T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\times \frac{.70 + .68}{1.36} =$$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

15.53**15.76****3.16 16.06 - 12.90**Summer Freeboard = **2.86**

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

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

Tropical Fresh Water Freeboard ...

Fresh Water „ „ ...

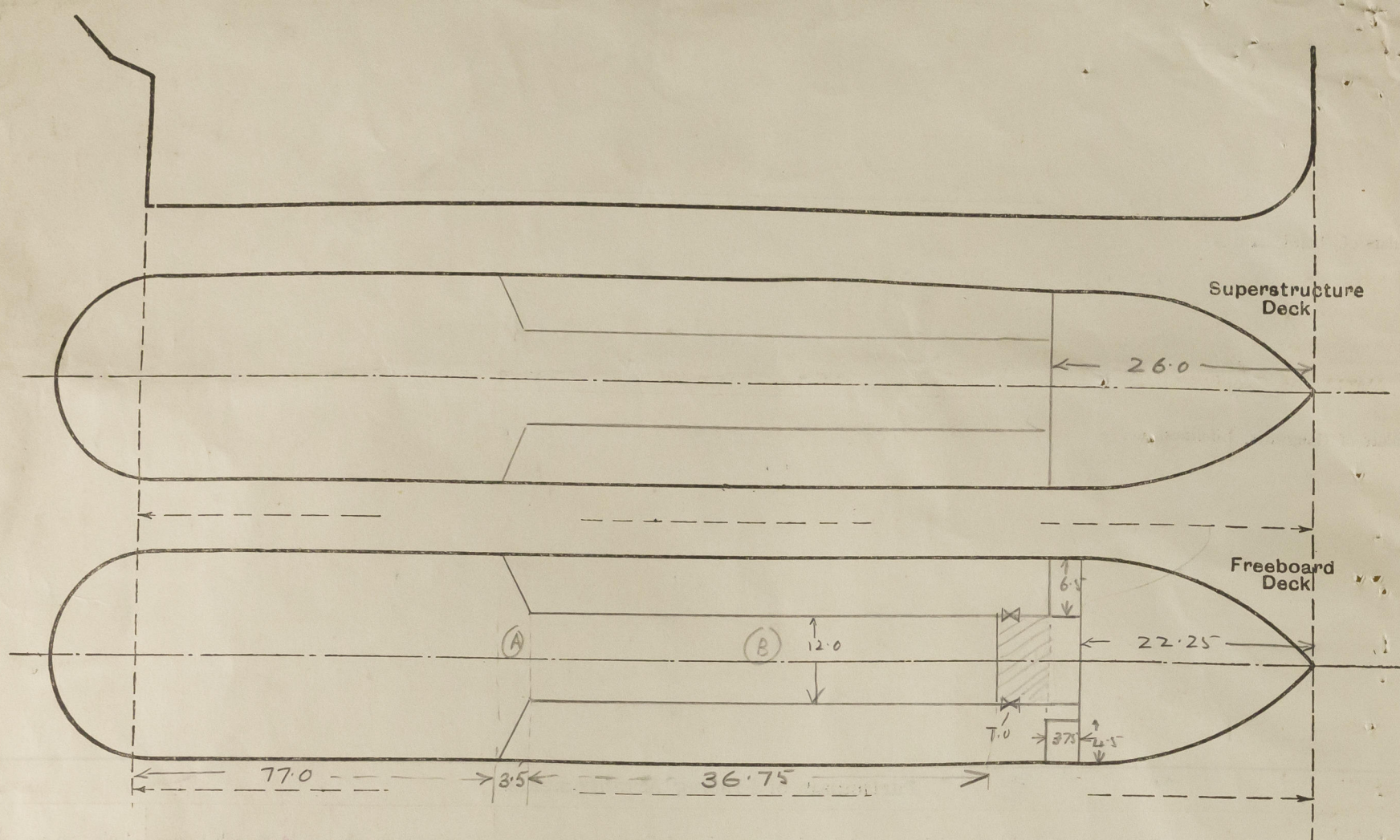
Tropical „ „ ...

Winter „ „ ...

Winter North Atlantic „ „ ...

0' 3"

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:—



Poop 77.0

$$\begin{aligned} \text{Trunk (A) for 44-46} & 3.5 \times \frac{19.75}{27.5} = 2.51 \\ \text{for 46-67} & 36.75 \times \frac{12}{22.5} = 16.03 \\ & 18.54 \end{aligned}$$

File Closed

$$\begin{aligned} \text{Houses: } \frac{3.75 \times 4.5}{2.5} &= .67 \\ \frac{3.75 \times 18.5}{2.5} &= 2.78 \\ 2.570 \\ 26.00 \\ \hline 28.57 &= \text{overhang} \end{aligned}$$

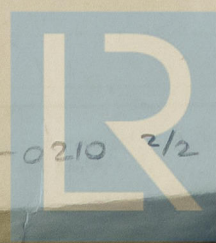
Builder's name and yard number

Names of sister ships

Owners

Fee £

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