

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. 17768
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey	
having <u>R O D - Bridge - Forecastle</u>					Date of Survey	
(Type of Superstructures.)					Name of Surveyor	
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification	
<u>LOKE</u>	<u>Stockholm</u> <u>Sweden</u>			<u>1905.</u>		
Moulded Dimensions: Length <u>230</u> ✓ Breadth <u>34.25</u> ✓ Depth <u>18.29</u> ✓						
Moulded displacement at moulded draught = 85 per cent. of moulded depth						
Coefficient of fineness for use with Tables <u>.765</u> (normal)						

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... 18.29	(a) Where D is greater than Table depth (D - Table depth) R = $(18.33 - 15.33) = 3.00$ ✓		Moulded Breadth (B)	34.25 x
Stringer plate	... .04			Standard Round of Beam = $\frac{B \times 12}{50}$	= 8.21 ✓
Sheathing on exposed deck	✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	= 8.5 ✓
$T \left(\frac{L-S}{L} \right) =$				Difference	= .29 ✓
Depth for Freeboard (D) =	<u>18.33</u> ✓	If restricted by superstructures	P	Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	= $\frac{.29}{4} \times 313 = -0.22$

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 ...	79.50	79.50	2.5	.646	51.40
" overhang ...					
Bridge enclosed ...	57.25	51.52	7.0	—	51.52
" overhang aft ...					
" overhang forward					
F'cle enclosed ...	25.50	25.50	7.0	—	25.50
" overhang ...	3.00	1.50			1.50
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	165.25	158.02			129.92

Standard Height of Superstructure	6.00 ✓
" " R.Q.D.	3.867 ✓
Deduction for complete superstructure	29.00 ✓
Percentage covered $\frac{S}{L}$	71.84
" " $\frac{S_1}{L}$	68.70
" " $\frac{E}{L}$	56.50
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	41.10
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction = $29 \times .41$	= 11.92 ✓

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P. ...	33.0	1		33.00	40.00	40.00	1
1/4 L from A.P. ...	14.69	4		58.76	16.58	16.58	4
1/2 L " ...	3.63	2		7.26	4.14	4.14	2
Amidships ...	—	4		—	—	—	4
3/4 L from F.P. ...	7.26	2		14.52	8.82	8.82	2
1/4 L " ...	29.38	4		117.52	35.30	35.30	4
F.P. ...	66.0	1		66.00	79.00	79.00	1
Total ...				297.06			

Mean actual sheer aft	= excess ✓
Mean standard sheer aft	
Mean actual sheer forward	= excess ✓
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships =	0.93
" " aft of	.5L

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{55.38}{18} \left(\frac{75-35.9}{200} \right) = 1.20 \times .193 = .2316$ ✓

If limited on account of midship superstructure. $\frac{193}{200}$ ✓

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.765 + .68}{1.36} = \frac{1.445}{1.36}$
Depth to Freeboard Deck = <u>18.33</u> ✓	Δ =	Depth Correction ... 5.31 ✓
Summer freeboard = <u>1.87</u> ✓	Tons per inch immersion at summer load water line	Deduction for superstructures ... 11.92 ✓
Moulded draught (d) = <u>16.46</u> ✓	T =	Sheer correction ... 1.16 ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>412.4</u> ✓	Deduction = $\frac{\Delta}{40 T}$ inches =	Round of Beam correction ... .02 ✓
Addition for Winter North Atlantic Freeboard (if required =		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>22.49</u> ✓

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 " " ...	

1906 { 1 - 7 1/4
 { 1 - 9 3/4

Diff { S + 3 1/4
 { W + 5

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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

Name of Surveyor

Moulded Dimensions: Length

Breadth

Depth

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

tons

Coefficient of fineness for use with Tables

Particulars of Classification

Depth for Freeboard (D)

Moulded depth

Stringer plate

Sheathing on exposed deck

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

Depth for Freeboard (D) =

Depth correction

 (a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$

 (b) Where D is less than Table depth (if allowed)
 $(\text{Table depth} - D) R =$

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B)

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

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

Difference

Restricted to

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

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					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
Fore enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total					

Standard Height of Superstructure

„ „ R.Q.D.

 Deduction for complete superstructure 29.00

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

$$\text{„ } \frac{S_1}{L} =$$

$$\text{„ } \frac{E}{L} = \underline{56.50}$$

 Percentage from Table, Line A.
 (corrected for absence of forecastle (if required)) 73.31

 Percentage from Table, Line B.
 (corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 29.00 \times 0.7331 = \underline{21.26}$$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$ „		2					2		
Amidships		4					4		
$\frac{3}{8}L$ from F.P.		2					2		
$\frac{4}{8}L$ „		4					4		
F.P.		1					1		
Total									

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(0.75 - \frac{S}{2L} \right) =$$

If limited on account of midship superstructure.

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$$

$$\frac{\text{Length of enclosed superstructure}}{L} \text{ forward of amidships} =$$

$$\text{„ „ aft of „} =$$

 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.

$$\text{Depth to Freeboard Deck} = \underline{18.33} \text{ Ft.}$$

$$\text{Summer freeboard} = \underline{1.10}$$

$$\text{Moulded draught (d)} = \underline{17.23}$$

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4} \text{ inches} = \underline{5.74} = \underline{5\frac{3}{4}}$$

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta =$$

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

	+	-
Depth Correction	5.31	
Deduction for superstructures		21.26
Sheer correction		1.16
Round of Beam correction		0.2
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	5.31	22.44
		-17.13
Summer Freeboard =		13.15

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 „ „ „ „ „ ..	

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

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

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Side Scuttles :

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.

State position of each freeing port { After Well :—
(P. and A. position and height above deck edge) { Forward Well :—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	...	...	...
Raised Quarter Deck Bulkhead	...		
Bridge, After Bulkhead	...	...
Bridge, Forward Bulkhead	...	...
Forecastle Bulkhead	...	...	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...		
Exposed Machinery Casings on Superstructure Decks	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...
Deckhouses on Flush Deck Ships	...		

Hand-drawn plan view of a ship's hull. The hull is elongated with rounded ends. A vertical dashed line runs through the center. A horizontal dashed line is labeled "28.5" with arrows indicating the width. The top deck is labeled "Superstructure Deck" and the bottom deck is labeled "Freeboard Deck". The drawing is on aged, stained paper.

Feb.	22.5
Mar. $\frac{2 \times 6}{12}$	3.0
Apr. 1	28.5
May 1	3.0

Fee £

Received by me