Rpt. C.11.

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having a C.S.S.

_____

(Type of Superstructures.)

Port of Survey _____

Date of Survey 23·1·34

Name of Surveyor _____

Particulars of Classification _____

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
Alcantara			36·50 ✓	

Moulded Dimensions: Length 640   Breadth 78   Depth 37' assumed

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

Coefficient of fineness for use with Tables ·746 ✓

Depth for Freeboard (D)

Moulded depth ... ... ✓ 36·50 / 37·0

Stringer plate ... ... ✓ ·04

Sheathing on exposed deck
$T\left(\dfrac{L-S}{L}\right) =$

Depth for Freeboard (D) = ✓ 36·54 / 37·04

Depth correction

(a) Where D is greater than Table depth
(D − Table depth) R =

(b) Where D is less than Table depth (if allowed)
(Table depth − D) R = ✓

$(42·67 - 37·04) \times 3 = -16·89$ ✓
5·63 6·13 ✓   18·39 ✓

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B)

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

Ship's Round of Beam =

Difference

Restricted to

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

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang... ...					
R.Q.D. enclosed ...					
„ overhang					
Bridge enclosed... ...					
„ overhang aft ...					
„ overhang forward					
F'cle enclosed					
„ overhang ...					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward					
Total					

Standard Height of Superstructure 7·5

„ „ R.Q.D. _____

Deduction for complete superstructure 42

Percentage covered $\dfrac{S}{L}$ =

„ „ $\dfrac{S_1}{L}$ =

„ „ $\dfrac{E}{L}$ =

Percentage from Table, Line A.
(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 = − 42 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
... ...		1				1	
from A.P. ...		4				4	
„ ...		2				2	
midships ...		4				4	
from F.P. ...		2				2	
„ ...		4				4	
... ...		1				1	
Total ...							

Rule 'tween deck = 8·0
Standard 7·5
—————
·5

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

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

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

„ „ „ aft of „ =

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(·75 - \dfrac{S}{2L}\right)$ = − ·50 ✓

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

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

Depth to Freeboard Deck = ✓ 36·54 Ft. / 37·04 ✓

Summer freeboard = ✓ 7·28

Moulded draught (d) = ✓ 29·84 / 29·76

Deduction for Tropical freeboard and addition for

Winter freeboard = $\dfrac{d}{4}$ inches = 29·46

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\triangle$ =

Tons per inch immersion at summer load water line

T =

Deduction = $\dfrac{\triangle}{40\,T}$ inches
=

TABULAR FREEBOARD corrected for Flush Deck (if required) 139·10

Correction for coefficient $\dfrac{·746 + ·68}{1·36} = \dfrac{1·426}{1·36}$ 145·80 ✓

	+	−
Depth Correction		18·39 ✓
		16·89
Deduction for superstructures		42·00 ✓
Sheer correction		·50 ✓
Round of Beam correction...		−
Correction for Thickness of Deck amidships		− ✓
Other corrections, scantlings, etc.		60·89 60·89
		− 59·39 −59·39 ✓

Summer Freeboard = 86·41 ✓

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 84·91

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 „ „