C.11.

Equivalent Depth

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

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

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having _____

_____

(Type of Superstructures.)

Port of Survey _____

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"Domenica" as C.S.S vessel				

Date of Survey 30/8/38

Name of Surveyor _____

Moulded Dimensions : Length 445·0 Breadth 58·45 Depth

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

Particulars of Classification _____

Coefficient of fineness for use with Tables ·750 assumed. see back _____ tons

Depth for Freeboard (D)

...lded depth	25·08
...er plate	·04
...thing on exposed deck	

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

Depth for Freeboard (D) = 25·12

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 = $\dfrac{(31·67-25·12)\,3}{·55}$ = − 19·65

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 assumed standard

Restricted to

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

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
...op enclosed					
" overhang... ...					
R.Q.D. enclosed ...					
" overhang ...		100 %.			
Bridge enclosed... ...					
" overhang aft ...					
" overhang forward					
..cle enclosed					
" overhang					
..runk aft					
" forward					
..onnage opening aft ...					
" " forward					
Total					

Standard Height of Superstructure 4·50

" " R.Q.D.

Deduction for complete superstructure 42·00

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 = − 42·00

SHEER CORRECTION.

...ation	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
... ...		1				1	
...n A.P. ...		4				4	
" ...		2				2	
...ps ...		4				4	
...F.P. ...		2				2	
" ...		4				4	
...tal ...		1				1	

$\dfrac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}}$ actual T.O Lt = 8·0

Standard " = 7·5

= ·50

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

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

" " aft of " =

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

...mited on account of midship superstructure.

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

...on for Tropical Freeboard.
...n for Winter and Winter North ...ic Freeboard.

	Ft.
...epth to Freeboard Deck =	25·12
...ummer freeboard	3·12
Moulded draught (d) =	22·00

...or Tropical freeboard and addition for
freeboard = $\dfrac{d}{4}$ inches =

...Winter North Atlantic Freeboard (if
...)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

Tons per inch immersion at summer load water line

T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient ·750+·68 = 94·80

1·36 = 99·68

Depth Correction	+
Deduction for superstructures ...	
Sheer correction	
Round of Beam correction... ...	
Correction for Thickness of Deck amidships	
Other corrections, scantlings, etc. ...	62·15 − 62·15

Summer Freeboard = 37·53

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	"

·789   @   85% of 40·75

$$85\% \text{ of } \frac{25·08}{\cancel{26·0}} = 21·25 \quad 21·31$$

$$\frac{21·25}{40·75} = \frac{·85}{·523} \qquad ·789$$

$$·327 \times ·012 = ·039$$

$$·31 \qquad ·450$$