CSS

Rpt. C.11 (Comp.).

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
Meteris 556/7				

Port of Survey _____

Date of Survey 31.10.50

Surveyor's Signature _____

Particulars of Classification _____

Moulded Dimensions : Length 42.00 Breadth 59.05 Depth 28.09

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

Coefficient of fineness for use with Tables .717 (Calculated)

DEPTH FOR FREEBOARD (D).

Moulded depth 28.09
Stringer plate 4
Sheathing on exposed deck
$T\left(\dfrac{L-S}{L}\right)=$

Depth for Freeboard (D) = 28.13

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D—Table depth) R =
$(28.13-28.07)3 = +0.18"$ .06

(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)
Standard Round of Beam = $\dfrac{B \times 12}{50}$ =
Ship's Round of Beam =
Difference
Restricted to
Correction = $\dfrac{\text{Diff}^e}{4} \times \left(1 - \dfrac{S_1}{L}\right)$ = NIL

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 _____

„ „ 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.

8.0
7.5
.5

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1		S		1	
⅙L from A.P. ...		4		T		4	
²⁄₆L „ ...		2		A		2	
Amidships ...		4		N		4	
²⁄₆L from F.P. ...		2		D		2	
⅙L „ ...		4		D		4	
F.P.		1		R		1	
Total ...				D			

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

If limited on account of midship superstructure.

Mean actual sheer aft / Mean standard sheer aft =

Mean actual sheer forward / Mean standard sheer forward =

Length of enclosed superstructure / L forward of amidships =

„ „ aft of „ =

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

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

Ft.
Depth to Freeboard Deck = 28.13
Summer freeboard = 3.17
Moulded draught (d) = 24.96

Deduction for Tropical freeboard and addition for

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

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)

Correction for coefficient $\dfrac{.717 + .68}{1.36} = \dfrac{1.397}{1.36}$

78.11

80.24

	+	−
Depth Correction	.18	
Deduction for superstructures ...	—	42.0
Sheer correction	—	.5
Round of Beam correction ...	—	
Correction for Thickness of Deck amidships ...	—	
Other corrections, scantlings, etc. ...	—	
	.18	42.50

−42.32

Summer Freeboard = 37.92

3-2"

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 „	...	...
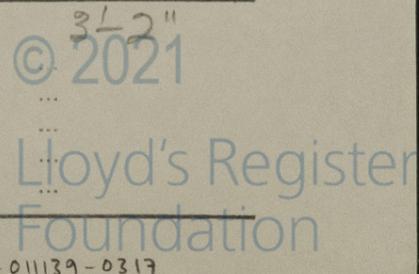
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$\underline{B_c \text{ conversion}} \quad \cdot 85 = \cdot 85 \left(\dfrac{28 \cdot 09}{36 \cdot 09}\right) \times \cdot 13.$

$= (\cdot 85 - \cdot 662) \times \cdot 13$

$= \cdot 188 \times \cdot 13$

$= \cdot 024$

$\text{New } B_c = \cdot 741 - \cdot 024$

$= \cdot 717$

$\text{F.S. Draught} = 27 \cdot 34'$
$\text{C.S.S. } \quad " \quad = 24 \cdot 96' \quad \Big\} \, 2 \cdot 38' \text{ Diff.}$

$\begin{array}{r} 25 \cdot 59 \\ 24 \cdot 96 \\ \hline \cdot 63 \end{array}$

$\text{Ship's Draught} = 25 \cdot 59'$

$\text{Freeing port area full draught.} = 5 \cdot 472 \, m^2$
$\text{C.S.S. } \quad " \quad = \dfrac{2 \cdot 736 \, m^2}{2 \cdot 736}$

$\text{Area Reqd for draught } 25 \cdot 59 = \dfrac{\cdot 63}{2 \cdot 38} \times 2 \cdot 736 \, m^2$

$= 2 \cdot 736 + \cdot 724$

$= \underline{3 \cdot 460 \, m^2}$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____ : _____