Rpt. C.11 (Comp.).

Amended computation for re-measurement

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

Index. No. 35533.
(For London Office only).

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
SUFFOLK COAST	166362	British, Liverpool	~~535.47~~	

Port of Survey

Date of ~~Survey~~ 27.1.41.

Surveyor's ~~Signature~~

Moulded Dimensions : Length 155.0' Breadth 28.0' Depth 11.67'

Particulars of Classification + 100 A1

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

Coefficient of fineness for use with Tables .743 (estimated)

Depth for Freeboard (D).
Moulded depth .... 11.67'
Stringer plate .... .03'
Sheathing on exposed deck
$T\left(\frac{L-S}{L}\right) =$ ✓

Depth for Freeboard (D) = 11.70".

Depth correction.
(a) Where D is greater than Table depth
(D—Table depth) R = $\frac{(11.70-10.33)1.192}{1.37}$ = +1.63"

(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) .... 28.00'
Standard Round of Beam = $\frac{B \times 12}{50}$ = 6.72"
Ship's Round of Beam = 9.50"
Difference *excess* 2.78"
Restricted to
Correction = $\frac{Diff^n}{4} \times \left(1-\frac{S_1}{L}\right)$ = $\frac{2.78}{4} \times .2629 = -.18$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	48.82	48.82	6'-11"		48.82
" overhang...					
R.Q.D. enclosed ...	47.84	47.84	3'-3⅜"	3.28/3.367	46.60
" overhang					
Bridge enclosed...					
" overhang aft ...					
" overhang forward					
F'cle enclosed	17.59	17.59	6'-11"		17.59
" overhang ...					
Trunk aft					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total	114.25	114.25			113.01

Standard Height of Superstructure 6.00'
" " R.Q.D. 3.367'
Deduction for complete superstructure 21.5"
Percentage covered $\frac{S}{L}$ = 73.71.
" " $\frac{S_1}{L}$ = 73.71.
" " $\frac{E}{L}$ = 72.92.
Percentage from Table, Line A. 66.59
(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 = 21.50 × .6659 = 14.32".

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	25.50	1	25.50	25 5/16	25.31	1	25.31
⅙L from A.P. ...	11.345	4	45.38	10 5/8	10.625	4	42.50
⅓L " ...	2.805	2	5.61	1	2.00	2	4.00
Amidships ...	—	4	—	—	—	4	—
⅓L from F.P. ...	5.61	2	11.22	9 1/16	9.06	2	18.12
⅙L " ...	22.69	4	90.76	28 3/16	28.19	4	112.76
F.P.	51.00	1	51.00	55.	55.00	1	55.00
Total ...			229.47				257.69

Mean actual sheer aft / Mean standard sheer aft = *Deficient but ⟩75% Standard.*

Mean actual sheer forward / Mean standard sheer forward = *Excess.*

Length of enclosed superstructure forward of amidships / L = ⟩.1L (Deficient Height)
" " aft of " = ⟩.5L

Correction = $\frac{\text{Difference between sums of products}}{18}\left(.75-\frac{S}{2L}\right)$ = $\frac{28.22}{18}(.75 \times .3685)$ = −.60"
.3815
If limited on account of midship superstructure. *Yes, no allowance.*
If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.
RAISED QUARTER Ft.
Depth to ~~Freeboard~~ Deck = 14.98
Summer freeboard = 3.62
Moulded draught (d) = 11.36
Deduction for Tropical freeboard and addition for
Winter freeboard = $\frac{d}{4}$ inches = 2.84 = 2¾
Addition for Winter North Atlantic Freeboard (if required) = 4¾"

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 = $\frac{\Delta}{40T}$ inches
$\frac{d}{4} = 2\frac{3}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required) 16.20
Correction for coefficient $\frac{.743+.68}{1.36}$ = 1.423/1.36 ✓ 16.95

	+	−
Depth Correction	1.63	
Deduction for superstructures		14.32
Sheer correction		.60
Round of Beam correction...		.18
Correction for Thickness of Deck amidships		
Other corrections, scantlings, *Raised Quarter*	39.36	
	40.99 14.50	+ 26.49

Summer Freeboard = 43.44

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood,~~ Steel Deck. *Raised Quarter*

Tropical Fresh Water Line above Centre of Disc ...	4¾	Tropical Fresh Water Freeboard ...	3 - 7½
Fresh Water Line " "	2¾	Fresh Water	3 - 2¾
Tropical Line " "	2" *limited*	Tropical	3 - 4¾
Winter Line below "	2¾	Winter	3 - 5½
Winter North Atlantic Line " "	4¾	Winter North Atlantic	3 - 10¾
			4 - 0¾

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Estimate of Coefficient of fineness

Δ @ 11'–5" Extreme draught (i.e. 11·33' M.D.) = 1073 Tons ✓

∴ moulded Δ @ " " " = 1023 × ·995 = 1068 Tons ✓

δ at 11·33' = $\dfrac{1068 \times 35}{155 \times 28 \times 11·33}$ = ·759 . 760 .

$\dfrac{11·33}{11·67}$ = ·971 ✓

If coefficient of fineness at ·971 Dm = ·759

That at ·85 Dm would be approximately ·759 − (·971 − ·85) ·013

= ·759 − ·016 = ·743 ✓