AMENDED COMPUTATION.

Rpt. C.11 (Comp.).

LLOYD'S REGISTER OF SHIPPING
UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No.
(For London Office only.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
OKNA.		BRITISH	460	1941

Port of Survey

Date of Survey . 17/4/53.

Surveyor's Signature

Particulars of Classification ✠ 100 A I

Moulded Dimensions : Length 152·00' Breadth 27'-6" Depth 15'-0"
·96 × LENGTH ON 95L

Moulded displacement at moulded draught = 85 per cent. of moulded depth 935 tons
(excluding bossing)

Coefficient of fineness for use with Tables ·68 (·616 ACTUAL)

DEPTH FOR FREEBOARD (D).

Moulded depth ... ... 15·00

Stringer plate ... ... ·026

Sheathing on exposed deck

$T\left(\dfrac{L-S}{L}\right) = \dfrac{2·5}{12} \times \dfrac{126·75}{152}$ ·174

Depth for Freeboard (D) ✓ 15·20

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D−Table depth) R = ✓
$\dfrac{(15·20 - 10·13)\,1·169}{5·07} = +5·93$

(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) 27·50

Standard Round of Beam $= \dfrac{B \times 12}{50} =$ 6·60

Ship's Round of Beam 7·00

Difference + ·40 ✓

Restricted to

Correction $= \dfrac{\text{Diff}^e}{4} \times \left(1 - \dfrac{S_1}{L}\right) = \dfrac{·40}{4} \times ·8339 = -·08"$

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	25·25	25·25	6'-6"	✓	25·25
„ overhang ...					
Trunk aft					
„ forward ...					
Tonnage opening aft ...					
„ „ forward...					
Total	25·25	25·25			25·25

Standard Height of Superstructure 6·00 ✓

„ „ R.Q.D.

Deduction for complete superstructure 21·2

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

„ „ $\dfrac{S_1}{L} =$ ⎫
„ „ $\dfrac{E}{L} =$ ⎬ 16·61
(blank) ⎭

Percentage from Table, Line A. ·8305
(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 $= 21·2 \times ·8305 = -1·74"$ ✓

SHEER CORRECTION.

VESSEL OF NORMAL DESIGN MAIN DRAFT LOADED 11'-2¾"
TRIM BY STERN 3'-11½".

| Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	25·20	1	25·20	67	43·25 25·20	1	25·20
⅙L from A.P. ...	11·215	4	44·86	39	23·17 11·215	4	44·86
⅔L „	2·77	2	5·54	15	7·08 2·77	2	5·54
Amidships ...	—	4	—	0	0 0	4	0
⅔L from F.P. ...	5·54	2	11·08	-6	1·92 1·92	2	3·84
⅙L „	22·43	4	89·72	0	15·83 15·83	4	63·32
F.P.	50·40	1	50·40	17	40·75 40·75	1	40·75
Total ...			226·80				183·51

Correction = $\dfrac{\text{Difference between sums of products}}{18} \left(·75 - \dfrac{S}{2L}\right)$ = $\dfrac{43·29}{18}$ (·75 - ·08305)· +1·60" ✓
If limited on account of midship superstructure. ✓ ·66695 If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Mean actual sheer aft
――――――――――――― = EXCESS
Mean standard sheer aft

Mean actual sheer forward
――――――――――――――― = DEFICIENT
Mean standard sheer forward

$\dfrac{\text{Length of enclosed superstructure}}{L}$ forward of amidships = ⎫ DEFICIENT
„ „ „ aft of „ = ⎬ SHEERS.

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

	Ft.
Depth to Freeboard Deck =	15·23
Summer freeboard =	2·43
Moulded draught (d) =	12·80
Keel allowance =	
Extreme draught =	

Deduction for Tropical freeboard and addition for

Winter freeboard = $\dfrac{d}{4}$ inches = 3·20 = 3¼"

Addition for Winter North Atlantic Freeboard (if required)= 5¼".

Deduction for Fresh Water.

Displacement in salt water at summer load water line
△ = 774 T.
Tons per inch immersion at summer load water line
T = 8·27
Deduction = $\dfrac{\triangle}{40\,T}$ inches
= 3¼"

TABULAR FREEBOARD corrected for Flush Deck (if required) 15·78

Correction for coefficient NIL 15·78

	+	−
Depth Correction	5·93	—
Deduction for superstructures ...	—	1·74
Sheer correction	1·60	—
Round of Beam correction ...		·08
Correction for Thickness of Deck amidships	·41	
Other corrections, scantlings, etc. 6" below	7·35	1·82
sill of lowest side scuttle	15·29	2·23
Summer Freeboard =	29·25	

+ 13·47

A.R. 18·4·53

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

21·4·1953.

Tropical Fresh Water Line above Centre of Disc ...	3¼	Tropical Fresh Water Freeboard	2'-5¼"
Fresh Water Line „ „ ...	3¼	Fresh Water „	2'-2"
Tropical Line „ „ ...	NIL.	Tropical „	2'-5¼"
Winter Line below „ „ ...	NIL.	Winter „	2'-5¼"
Winter North Atlantic Line „ „ ...	NIL.	Winter North Atlantic „	2'-5¼"

2'-5¼"
2'-2"
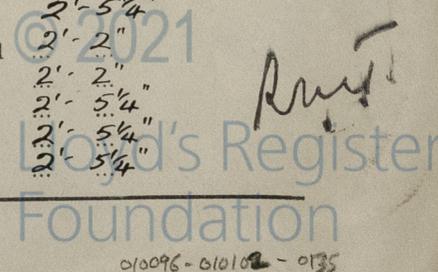
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

For heights of fill see other C11 comp,

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____