Rpt. C.11 (Comp.).

With ~~longitudinal as floor date~~

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
Furness SB Co' Yard Nº 388				

Port of Survey _____

Date of Survey *17.7.44*

Surveyor's Signature _____

Particulars of Classification _____

Moulded Dimensions : Length *535·75* Breadth *74·0* Depth { *57·0* / *35·0* }

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

Coefficient of fineness for use with Tables *·827 assumed*

Depth for Freeboard (D).

Moulded depth *Virtual* ... *41·00*

Stringer plate ... ... *·06*

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

Depth for Freeboard (D) = *41·06*

Depth correction.

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

$\dfrac{(41·06 - 35·71) \times 3}{5·35} = +16·05$

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

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 _____

„ „ R.Q.D. _____

Deduction for complete superstructure _____

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 = *Say 40·00*

SHEER CORRECTION.

bridge witness *16·00*
standard *7·50*
8·50
= *102·0*

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	63·57	1	63·57	3·62	3·62 3·62	1	3·62
⅙L from A.P. ...	28·29	4	113·16		—	4	—
⅓L „	6·995	2	13·99		—	2	—
Amidships ...	—	4	—		—	4	—
⅓L from F.P. ...	13·99	2	27·98		15·18 13·99	2	27·98
⅙L „ ...	56·58	4	226·32	2·50	61·42 56·58	4	226·32
F.P.	127·15	1	127·15	36·00	138·00 127·15	1	127·15
Total ...			572·17	+102·00			385·07

Mean actual sheer aft = *Deficient*
Mean standard sheer aft

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

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

„ „ aft of „ =

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(·75 - \dfrac{S}{2L}\right)$ = $\dfrac{187·10}{18}(·75 - ·48) = +2·81$
·27

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.

Ft.

Depth to Freeboard Deck = *41·06*

Summer freeboard = *8·63*

Moulded draught (d) = *32·43*

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

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 $\dfrac{·08 + ·827}{1·36} = \dfrac{1·507}{1·36}$

112·51
124·09

	+	−
Depth Correction	16·05	—
Deduction for superstructures		40·00
Sheer correction	2·81	—
Round of Beam correction ...		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		

18·86 124·09 *− 21·14*

Summer Freeboard = *103·58*

8·63

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 „	