Rpt. C.11 (Comp.).

proposed alteration

Index No.
(For London Office only.)

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
Carmen 230/1				

Moulded Dimensions: Length 316·0 Breadth 46·0 Depth 19·0

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

Coefficient of fineness for use with Tables .....

Port of Survey .....

Date of Survey 18·12·48.

Surveyor's Signature .....

Particulars of Classification Tanker.

DEPTH FOR FREEBOARD (D).

Moulded depth ... ... 19·0

Stringer plate ... ... ·04

Sheathing on exposed deck

$T\left(\frac{L-S}{L}\right)$ = —

Depth for Freeboard (D) = 19·04

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 = (21·07 − 19·04) × 2431 = 4·93

If restricted by superstructures 4·93 × ·5 = 6·66 = 3·33

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) 46·00

Standard Round of Beam = $\frac{B \times 12}{50}$ = 11·04

Ship's Round of Beam = 11·00

Difference ·04

Restricted to

Correction = $\frac{\text{Diff}^{e}}{4} \times \left(1 - \frac{S_1}{L}\right)$ = ·04/4 × ·215 = Nil

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed	93	93·0	4·5	4·5 × 488	85·76
„ overhang					
Bridge enclosed					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed	38·0	38·0	7·0		38·00
„ overhang					
Trunk aft		11·09	4·5	4·5 × 6·66	79·12
„ forward					
Tonnage opening aft ...					
„ „ forward ...					
Total	131·0	242·09			202·88

Standard Height of Superstructure 6·66'

„ „ R.Q.D. 4·880

Deduction for complete superstructure 36·4

Percentage covered $\frac{S}{L}$ = 41·46

„ „ $\frac{S_1}{L}$ = 78·50

„ „ $\frac{E}{L}$ = 64·21

Percentage from Table, Line ~~A.~~ Tanker 56·63
(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 = 36·4 × ·5663 = −20·61

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	41·6	1	41·6	53·6	53·6	1	53·60
$\frac{1}{6}$L from A.P. ...	18·51	4	74·04	·57	·57	4	204
$\frac{2}{6}$L „ ...	4·575	2	9·15	—	—	2	
Amidships ...	—	4	—	—	—	4	—
$\frac{2}{6}$L from F.P. ...	9·15	2	18·30	—	—	2	—
$\frac{1}{6}$L „ ...	37·02	4	148·08	19·02	19·02	4	76·08
F.P.	83·20	1	83·20	65·2	65·2	1	65·2
Total ...			374·37				× 196·92

Mean actual sheer aft / Mean standard sheer aft = < 1

Mean actual sheer forward / Mean standard sheer forward = < 1

Length of enclosed superstructure / L forward of amidships = Deck House

„ „ aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot 75 - \frac{S}{2L}\right) \times \frac{1}{4}$ 7·45 × (·75 − ·2073) = +5·35

·5027

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 Freebroad.

Ft.

Depth to Freeboard Deck = 19·04

Summer freeboard = 2·40

Moulded draught (d) = 16·64

Deduction for Tropical freeboard and addition for

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

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
△ =

Tons per inch immersion at summer load water line
T =

Deduction = $\frac{\triangle}{40\ T}$ inches
=

TABULAR FREEBOARD corrected for Flush Deck (if required) 44·30 / 47·23

Correction for coefficient

	+	−
Depth Correction		3·33
Deduction for superstructures		20·61
Sheer correction	5·35	
Round of Beam correction	—	—
Correction for Thickness of Deck amidships ...	—	—
Other corrections, scantlings, etc.	—	—
	5·35	23·94

−18·59

Summer Freeboard = 28·64

18·12·48

2'-4 3/4

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 „	... ...