

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER.)

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	13.5	(a) Where D is greater than Table depth		Moulded Breadth (B)	30.0
Stringer plate	R.Q. Deck 32" 38"	(D - Table depth) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	7.20
Deck composition	Poop deck 2" thick.	(13.53 - 12.64) x 1.464 =	+1.23"	Ship's Round of Beam	4.5"
Sheathing on exposed deck	dry wales, DOVE & Co.			Difference	30"
T $\left(\frac{L-S}{L}\right)$		(b) Where D is less than Table depth (if allowed)		Restricted to	
Depth for Freeboard (D) =	13.53	(Table depth - D) R =		Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L}\right)$	$= \frac{30}{4} \times 1.792 = -1.29$

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	50'-0"		7'-3"		
" front overhang rounded	2'-3"		✓		
R.Q.D. enclosed	119'-8"		4'-6"		
" at center line overhang line	120'-3" 8"	120.06	✓	✓	120.06
Bridge enclosed...	✓		✓		
" overhang aft	✓		✓		
" overhang forward	✓		✓		
File enclosed open	✓ 17'-2" 70 feet 17.16 70 ft.		4'-6" 5 4'-0" 5	✓	17.16
" overhang	✓		✓		
Trunk aft	✓		✓		
" forward	✓		✓		
Tonnage opening aft	✓		✓		
" forward			✓		
Total	137.22 [†]	137.22			137.22

STURSES.

Standard Height of Superstructure \bullet 6.00'

" " R.Q.D. 3.603'

Deduction for complete superstructure 25.04"

Percentage covered $\frac{S}{L} = 71.08$

" " $\frac{S_1}{L} = 71.08$

" " $\frac{E}{L} = 71.08$

Percentage from Table, Line A. 65.56

(corrected for absence of forecaste (if required)) ✓

Percentage from Table, Line B. ✓

(corrected for absence of forecaste (if required)) ✓

Interpolation for bridge less than $\cdot 2L$ (if required) ✓

Deduction = $25.04 \times 65.56 = -16.41$ ✓

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	29.04	1	29.04	30" ✓	73.76	1	73.76
$\frac{1}{2}$ L from A.P. ...	12.92	4	51.68	13" ✓	32.82	4	131.28
$\frac{3}{8}$ L " ...	3.195	2	6.39	3 $\frac{1}{2}$ " ✓	8.11	2	16.22
Amidships ...	—	4	—	N.L. ✓	—	4	—
$\frac{3}{8}$ L from F.P. ...	6.39	2	12.78	7 $\frac{1}{2}$ " ✓	7.50	2	15.00
$\frac{1}{8}$ L " ...	25.84	4	103.36	29 $\frac{1}{2}$ " ✓	24.50	4	118.00
F.P.	58.08	1	58.08	66" ✓	66.00	1	66.00
Total ...			261.33				420.26

Actual raised Quarter Dh Height = 4.50'

Standard " " " " = 3.603

Mean actual sheer aft

Mean standard sheer aft = Excess.

1.897

10.76"

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18}$$

If limited on account of midship superstructure.

$$\left(.75 - \frac{S}{2L} \right) = \frac{158.93}{12} (.75 - .3604) = -3.44" \quad \text{If limited to maximum allowance of } 1\frac{1}{2} \text{ ins. per 100 ft. } 2.86"$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} = \text{Excess}$$

Length of enclosed superstructure forward of amidships = 7.12
 " " aft of " = 7.12

Deduction for Tropical Freeboard. Ft.

Addition for Winter and Winter North Atlantic Freeboard.

RAISED QUARTER

Depth to Freeboard Deck	=	18.03
Summer freeboard	=	4.87
Moulded draught (d)	=	<u>13.16</u>

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $3.29 - 3\frac{3}{4}$ "

Addition for Winter North Atlantic Freeboard (if required) = $5\frac{1}{4}$ "

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1650$

Tons per inch immersion at summer load water line

$T = 11.89$

Deduction = $\frac{\Delta}{40 T}$ inches = $3\frac{1}{2}$ "

Mod. Breadth.	Ext. Disp.	T. P. Inch.
13' - 6"	1698	11.93
✓ 18' - 0"	✓ 1627	11.87
✓ 12' - 6"	✓ 1556	11.79
12' - 0"	1486	11.7
11' - 0"	1416	11.54

TABULAR FREEBOARD		corrected for Flush Deck (if required)	
Correction for coefficient	$75 + .68$ 1.36	$= 1.430 / 1.36$	
Depth Correction
Deduction for superstructures
Sheer correction
Round of Beam correction
Correction for Thickness of Deck amidships
Other corrections, scantlings, etc.

Fish Deek (if required)		
30/136		21.47
		22.58
+	-	
1.23	-	
-	16.41	
-	2.86	
-	.02	
54.00	-	
-	-	
55.23	19.29	+ 35.94
Summer Freeboard =		58.52

SUMMER FREEBOARD amidships from Centre of

Tropical Fresh Water Line above Centre of Disc	...	6"
Fresh Water Line	" "	3½"
Tropical Line	" "	2½"
Winter Line	below "	3¼"
Winter North Atlantic Line	" "	5¼"

Deck	Wood	Steel	Height
Tropical Fresh Water Freeboard	4' - 10 1/2"
Fresh Water	"	...	4' - 7"
Tropical	"	...	4' - 8" LIMITED
Winter	"	...	5' - 13 1/4"
Winter North Atlantic	"	...	5' - 3 3/4"

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.

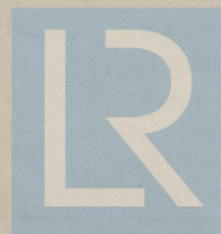
Trade of ship Home Trade.

Names of sister ships MOTOR COASTER "EMPIRE CLIFF" - HULL FREEBOARD REPORT NO. 1537.

Builder's name and yard number Goole Shipbuilding & Repairing Co., Ltd., Goole. Yard No. 358.

Owners MINISTRY OF SHIPPING.

Fee £ Will be charged with First Entry.



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