

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Index. No. 32310.  
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having a poop, bridge and forecastle

(Type of Superstructures.)

Ship's Name CLYDEFIELD Nationality and Port of Registry  Official Number  Gross Tonnage  Date of Build

Moulded Dimensions: Length 419.41 Breadth 57.5 Depth 32.75

Moulded displacement at moulded draught = 85 per cent. of moulded depth 15070 tons

Coefficient of fineness for use with Tables .786

Port of Survey

Date of Survey

Name of Surveyor

Particulars of Classification +100A1  
carrying petroleum in bulk

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	32.75	(a) Where D is greater than Table depth (D - Table depth) R = $(32.81 - 27.96) \times 3$ = <u>+14.55</u>		Moulded Breadth (B)	57.5
Stringer plate	.06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u></u>		Standard Round of Beam = $\frac{B \times 12}{50}$	13.80
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	15.00
Depth for Freeboard (D) =	32.81			Difference	1.20
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{1.20^2}{4} \times \frac{586}{4} = -18$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	89.37	89.37	7.5	-	89.37
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	35.58	35.58	8.0	-	35.58
" overhang aft ...	4.25	3.19			3.19
" overhang forward ...	4.25	2.12			2.12
F'cle enclosed ...	44.37	43.16	7.5	-	43.16
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	177.82	173.42			173.42

Standard Height of Superstructure 7' 6"

" " R.Q.D.

Deduction for complete superstructure 42

Percentage covered  $\frac{S}{L} = 42.42$

" "  $\frac{S_1}{L} = 41.35$

" "  $\frac{E}{L} = 41.35$

Percentage from Table, Line A.   
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. Tanker: 3235  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than  $\cdot 2L$  (if required) Tanker does not apply

Deduction =  $42 \times 3235 = -13.59$

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	51.94	1	51.94	59.5	59.5	1	59.50
$\frac{1}{4}L$ from A.P. ...	23.11	4	92.44	26.46	26.46	4	105.84
$\frac{2}{4}L$ " ...	5.71	2	11.42	6.62	6.62	2	13.24
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{4}L$ from F.P. ...	11.43	2	22.86	12.84	12.84	2	25.68
$\frac{1}{4}L$ " ...	46.23	4	184.92	51.34	51.34	4	205.36
F.P. ...	103.88	1	103.88	114.0	114.0	1	114.00
Total ...			467.46				523.62

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \cdot 75 - \frac{S}{2L} \right) = \frac{56.16}{18} (\cdot 75 - \cdot 212) = -1.68$

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 32.81

Summer freeboard = 5.96

Moulded draught (d) = 26.85

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 6.71Addition for Winter North Atlantic Freeboard (if required) = 4.19

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

Tons per inch immersion at summer load water line

$\Delta =$

T =

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

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
14.55	-
-	13.59
-	1.68
-	18
-	-
14.55	15.45

Summer Freeboard = 71.58SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...	13.5
Fresh Water Line " " ...	6.34
Tropical Line " " ...	6.34
Winter Line below " " ...	6.34
Winter North Atlantic Line " " ...	11

Tropical Fresh Water Freeboard ...	5' 11 1/2"
Fresh Water " " ...	4' 10"
Tropical " " ...	5' 4 3/4"
Winter " " ...	6' 6 1/4"
Winter North Atlantic " " ...	6' 10 1/2"