

# Amended Computation

## Lloyd's Register of Shipping.

### SURVEYS FOR FREEBOARD.

 Index No. 34542  
 (For London Office only.)

Computation of Freeboard for <i>Single Deck Motor</i> <i>Steamer, Sailing Ship, Tanker</i>					Port of Survey _____ Date of Survey <u>1.10.25</u> Name of Surveyor _____	
having <u>Single deck Prop, Bridge &amp; Forecastle.</u> (Type of Superstructures.)					Particulars of Classification <u>100 A1</u> <u>Carrying Petroleum in Bulk</u> <u>(contemplated)</u>	
Ship's Name <u>Odessa Steel Ship</u> <u>Proposal No 799.</u>		Nationality and Port of Registry _____ Official Number _____ Gross Tonnage _____ Date of Build _____				
Moulded Dimensions: Length <u>475</u> Breadth <u>63'-9"</u> Depth <u>34'-10"</u> Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>20500</u> tons Coefficient of fineness for use with Tables <u>.800</u>						

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>34.83</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(34.89 - 31.67) 3.00</u> <u>= + 9.66"</u>	Moulded Breadth (B) <u>63'-9"</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{766.8}{50} = 15.30$ Ship's Round of Beam = <u>15.375</u> Difference = <u>.075 excess</u>
Stringer plate ... <u>.06</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>✓</u>	Difference
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ <u>✓</u>	If restricted by superstructures <u>✓</u>	Restricted to
Depth for Freeboard (D) = <u>34.89</u>		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.075}{4} (1 - .3542) = -.01"$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poep enclosed ...	96.21	96.21	7.67	✓	96.21
" overhang ...	3.12	1.56			1.56
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	36.75	36.75	7.50	✓	36.75
" overhang aft ...					
" overhang forward					
F'cle enclosed ...	33.70	33.70	7.50	✓	33.70
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	169.78	168.22			168.22

Standard Height of Superstructure 7.50'  
 " " R.Q.D. ✓  
 Deduction for complete superstructure 42.00  
 Percentage covered  $\frac{S}{L} = \frac{168.22}{420} = 35.74\%$   
 "  $\frac{S_1}{L} = \frac{168.22}{420} = 35.42\%$   
 "  $\frac{E}{L} = \frac{168.22}{420} = 35.42\%$   
 Percentage from Table, Line A Tanker 26.42  
 (corrected for absence of fore-castle (if required))  
 Percentage from Table, Line B.  
 (corrected for absence of fore-castle (if required))  
 Interpolation for bridge less than 2L (if required)  
 Deduction = 42 × .2642 = - 11.09

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	57.50	1	57.50	45.66	45.66	1	45.66
$\frac{1}{2}$ L from A.P. ...	25.585	4	102.34	9.84	9.84	4	39.36
$\frac{2}{3}$ L " ...	6.325	2	12.65	0	0	2	0
Amidships ...	✓	4	✓	✓	✓	4	✓
$\frac{2}{3}$ L from F.P. ...	12.65	2	25.30	0	0	2	0
$\frac{1}{2}$ L " ...	51.17	4	204.68	29.92	29.92	4	119.68
F.P. ...	115.00	1	115.00	98.04	98.04	1	98.04
Total ...			517.47				302.74

Mean actual sheer aft = Deficient  
 Mean standard sheer aft  
 Mean actual sheer forward = Deficient  
 Mean standard sheer forward  
 Length of enclosed superstructure forward of amidships = 5 sheers  
 " " aft of " = deficient

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{214.73}{18} \left( .75 - \frac{.1787}{2} \right) = + 6.82"$$

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.

Ft.  
 Depth to Freeboard Deck = 34.89  
 Summer freeboard = 7.83  
 Moulded draught (d) = 27.06

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 6.76" = 6 $\frac{3}{4}$ "Addition for Winter North Atlantic Freeboard (if required) = 6 $\frac{3}{4}$ " + 4 $\frac{3}{4}$ " = 11 $\frac{1}{2}$ "

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Tons per inch immersion at summer load water line

T =

Deduction =  $\frac{\Delta}{40T}$  inches= 6 $\frac{3}{4}$ " $\frac{d}{4} = 6\frac{3}{4}"$ 

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{.804 \cdot 68}{1.36} = \frac{148}{136}$$

	+	-
Depth Correction ...	9.66	-
Deduction for superstructures ...	-	11.09
Sheer correction ...	6.82	-
Round of Beam correction ...	-	.01
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	16.48	11.10

Summer Freeboard = 94.01

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

Tropical Fresh Water Line above Centre of Disc ...	13 $\frac{1}{2}$ "
Fresh Water Line " " ...	6 $\frac{3}{4}$ "
Tropical Line " " ...	6 $\frac{3}{4}$ "
Winter Line below " " ...	6 $\frac{3}{4}$ "
Winter North Atlantic Line " " ...	11 $\frac{1}{2}$ "

Tropical Fresh Water Freeboard ...	6'-8 $\frac{1}{2}$ "
Fresh Water " " ...	7'-3 $\frac{1}{4}$ "
Tropical " " ...	7'-3 $\frac{1}{4}$ "
Winter " " ...	8'-4 $\frac{3}{4}$ "
Winter North Atlantic " " ...	8'-9 $\frac{1}{2}$ "