

*Amended computation for reduced
tanker tabular freeboard.*

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY

Received

Index No.

Govt. Copy

Owners C11

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
<i>ESSO BALBOA</i> <i>ex ESSO Norwich</i>		<i>Panama</i>		<i>1959</i>

Port of Survey

Date of Survey *13/9/62*

Surveyor's Signature

Moulded Dimensions: Length *660'* Breadth *90'* Depth *47'*
Freeboard Length *to 4 of rudderstock*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *54000* tons
(excluding bossing)
Coefficient of fineness for use with Tables *0.796*

Particulars of Classification *+ 100 A1*
CARRYING PETROLEUM IN BULK.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth <i>47.00</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>+ 9.33"</i>	Moulded Breadth (B)
Stringer plate <i>0.11</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = <i>47.11'</i>		Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = +0.07"$

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					
" 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 $\frac{S}{L} =$ " " $\frac{S_1}{L} =$ " " $\frac{E}{L} =$

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 = *14.30"*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{2}L$ from A.P.		4					4		
$\frac{3}{4}L$ "		2					2		
Amidships	0	4	0	0	0	0	4	0	0
$\frac{3}{4}L$ from F.P.		2					2		
$\frac{1}{2}L$ "		4					4		
F.P.		1					1		
Total									

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
L

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = +16.21"$
If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *47.11'*
Summer freeboard = *11.55'*
Moulded draught (d) = *35.56'*
Keel allowance = *✓*
Extreme draught = *✓*
Deduction for Tropical freeboard and addition for *✓*

Winter freeboard = $\frac{d}{4}$ inches = *8.89" = 226 m/m*Addition for Winter North Atlantic Freeboard (if required) = *8.89 + 6.6 = 15.49" = 393 m/m*

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 48615$
Tons per inch immersion at summer load water line
T = *122.66*
Deduction = $\frac{\Delta}{40 T}$ inches
= *9.91"*
= *252 m/m*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

*1.476**1.30*

Depth Correction *9.33*
Deduction for superstructures *14.30*
Sheer correction *16.21*
Round of Beam correction *0.07*
Correction for Thickness of Deck amidships
Other corrections, scantlings, etc.

	+	-
9.33		
14.30		
16.21		
0.07		

Summer Freeboard = *138.61*

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

Tropical Fresh Water Line above Centre of Disc ... *4.78 m/m*
Fresh Water Line " " ... *2.52*
Tropical Line " " ... *2.26*
Winter Line below " " ... *2.26*
Winter North Atlantic Line " " ... *3.93*

Tropical Fresh Water Freeboard ... *3521 m/m*
Fresh Water " ... *3043*
Tropical " ... *3269*
Winter " ... *3295*
Winter North Atlantic " ... *3747*
Winter North Atlantic " ... *3914*

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