

STEAMER

Index No. 42289
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name ESSO LIVERPOOL ex JOHN D. ARCHBOLD	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 554.5 Breadth 75 Depth 35.0					Date of Survey 16.5.0.50.
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature
Coefficient of fineness for use with Tables .80 say					Particulars of Classification

DEPTH FOR FREEBOARD (D).

Moulded depth ... **35.0**

Stringer plate **.50** ... **.04**

Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **35.04**

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 = **(36.97-35.04)3 = -5.79**

If restricted by superstructures **NO**

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **75.0**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{75.0 \times 12}{50} = 18.0$

Ship's Round of Beam = **15.0**

Difference **3.0**

Restricted to

Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{3.0}{4} \times \left(1 - \frac{100}{554.5}\right) = 0.75 \times 0.818 = 0.6135$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	302.00	302.00			
„ overhang	.50	.25			
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	243.47	243.47	8.25		
„ overhang aft					
„ overhang forward					
Fore enclosed	4.53	2.27			
„ overhang					
Trunk aft					
„ forward					
Tonnage opening	4.00	3.26			
„ forward					
Total	554.50	551.25			551.25

Standard Height of Superstructure **7.5**

„ „ R.Q.D. **—**

Deduction for complete superstructure **42.0**

Percentage covered $\frac{S}{L} = \frac{100}{554.5} = 0.1803$

„ „ $\frac{S_1}{L} = \frac{99.42}{554.5} = 0.1793$

„ „ $\frac{E}{L} = \frac{99.28}{554.5} = 0.1790$

Percentage from Table, Line A. **99.28**
(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 = **42 x .9928 = 41.70**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	65.45	1	65.45	39	48	1	48.00
$\frac{1}{8}L$ from A.P.	29.125	4	116.50	4	13	4	52.00
$\frac{2}{8}L$ „	7.20	2	14.4	—	5.28	2	10.56
Amidships	—	4	—	—	—	4	—
$\frac{3}{8}L$ from F.P.	14.40	2	28.8	—	9	2	18.00
$\frac{4}{8}L$ „	58.25	4	233.00	11	20	4	80.00
F.P.	130.90	1	130.90	116	125	1	125.00
Total			589.05	116			333.56

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{255.49}{18} \times .25 = +3.55$

If limited on account of midship superstructure.

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

„ „ aft of „ =

Deduction for Tropical Freeboard.**Addition for Winter and Winter North Atlantic Freeboard.**

Depth to Freeboard Deck = **35.04**

Summer freeboard = **7.0**

Moulded draught (d) = **28.04**

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

$\Delta =$

Tons per inch immersion at summer load water line

T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

80.65 **1.48/1.36**

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

	+	-
Depth Correction	—	5.79
Deduction for superstructures	—	41.70
Sheer correction	3.55	—
Round of Beam correction	—	—
Correction for Thickness of Deck amidships	—	—
Other corrections, scantlings, etc.	—	—
	3.55	47.49

Summer Freeboard = **84.06**

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

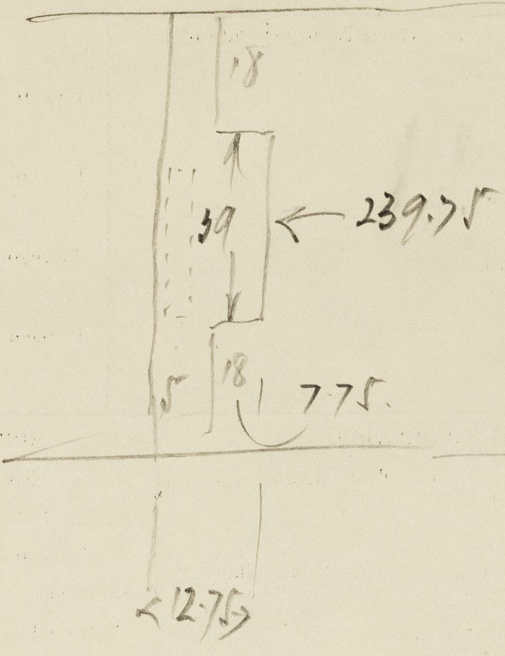
Tropical

Winter

Winter North Atlantic

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.

240.21



239.75
12.75
252.50
554.5
302.00

239.75
3.72
243.47
+ 7.75 x 36
75

25
39
36

7.75
3.72
4.03
5

Shur area	APL	46-11	3-3	39
		44-0	-4	4
		43-8		0
		43-8		0
		43-8		0
		44-7		11
		53-4	9-8	116

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation