

Esso Purfleet
Rpt. C.11 (Comp.)
38955

BT COPY

181581
10,712.01
Index No.
(For London Office only.)
38955

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "ESSO PURFLEET" (EX. "RIDGEFIELD")	Official Number 181581	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 10712	Date of Build 1944	Port of Survey LONDON
Moulded Dimensions: Length 503'-0" Breadth 68'-0" Depth 39'-3"					Date of Survey 19th FEB. 1947
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24300 tons					Surveyor's Signature W. A. Lomack
Coefficient of fineness for use with Tables 745					Particulars of Classification

DEPTH FOR FREEBOARD (D). Moulded depth ... 39.25' Stringer plate08' Sheathing on exposed deck ✓ $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 39.33	DEPTH CORRECTION. (a) Where D is greater than Table depth $(D - \text{Table depth}) \times R = +17.40'$ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 68'-0" Standard Round of Beam = $\frac{B \times 12}{50} = 16.32$ Ship's Round of Beam = 18" Difference 1.68 Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.68}{4} \times .6017 = -.25'$
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DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure 7.5'
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	" " R.Q.D. 42.00'
Poop enclosed <i>equiv.</i>	108.67	108.67	8.0	-	108.67	Deduction for complete superstructure
" overhang						Percentage covered $\frac{S}{L} =$
R.Q.D. enclosed						" $\frac{S_1}{L} =$ 39.83
" overhang						" $\frac{E}{L} =$
Bridge enclosed <i>equiv.</i>	38.67	38.67	9.0		38.67	Percentage from Table, Line Tankers 30.83
" overhang aft						(corrected for absence of forecastle (if required))
" overhang forward						Percentage from Table, Line B.
F'cle enclosed	53.00	53.00	10.0		53.00	(corrected for absence of forecastle (if required))
" overhang						Interpolation for bridge less than .2L (if required)
Trunk aft						Deduction = 42.00 x .3083 = -12.95'
" forward						
Tonnage opening aft						
" " forward						
Total	200.34	200.34			200.34	

SHEER CORRECTION.								Mean actual sheer aft = < 1		
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean standard sheer aft
A.P.	60.30	1		60.30	24.0	24	1		24	
$\frac{1}{8}$ L from A.P.	26.835	4		107.34	4.0	4	4		16	Mean actual sheer forward = < 1
$\frac{2}{8}$ L	6.63	2		13.26	0	-	2		-	Mean standard sheer forward
Amidships	-	4		-	0	-	4		-	
$\frac{2}{8}$ L from F.P.	13.27	2		26.54	0	-	2		-	Length of enclosed superstructure forward of amidships = Tankers with deficient sheer
$\frac{1}{8}$ L	53.67	4		214.68	6.0	6	4		24	" " aft of " =
F.P.	120.60	1		120.60	18.0	18	1		18	
Total				542.72					82	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{460.72}{18} (.75 - .1991) = +14.10'$										If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.
If limited on account of midship superstructure.										

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 39.33 Summer freeboard = 9.23 Moulded draught (d) = 30.10 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.52 = 7$\frac{1}{2}$" Addition for Winter North Atlantic Freeboard (if required) = 7.52 + 5.03 = 12.55 = 12$\frac{1}{2}$"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 21890 Tons per inch immersion at summer load water line $T =$ 67.00 Deduction = $\frac{\Delta}{40 T}$ inches = 8.17 = 8$\frac{1}{4}$"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient 1.425/1.36 Depth Correction ... 17.40 Deduction for superstructures ... 12.95 Sheer correction ... 14.10 Round of Beam correction25 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... 31.50 13.10 +18.30 Summer Freeboard = 110.70
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	... 15$\frac{3}{4}$"	Tropical Fresh Water Freeboard	7$\frac{1}{2}$"
Fresh Water Line	... 8$\frac{1}{4}$"	Fresh Water	8$\frac{1}{2}$"
Tropical Line	... 7$\frac{1}{2}$"	Tropical	8$\frac{1}{2}$"
Winter Line below	... 7$\frac{1}{2}$"	Winter	9$\frac{1}{2}$"
Winter North Atlantic Line	... 12$\frac{1}{2}$"	Winter North Atlantic	10$\frac{1}{2}$"

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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.

Deck
 $\frac{2}{3} \times 4$

106.0

2.67

108.67

Bridge
 $\frac{2}{3} \times 4$

36.0

2.67

38.67

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ 20-0-0 (24 FEB 1947)



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Foundation