

Index No. 422
(For London Office only.)

Rpt. C.11 (Com)

Esso Southampton
42339

OWNERS' C.11 ISSUED 30 NOV 1950

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
"ESSO BELFAST"	Not yet registered. 183240	BRITISH LONDON.	11752 (Provisional) being re-measured 13073	1930.
Moulded Dimensions: Length 525.0' Breadth 74.0' Depth 40.5'				
Moulded displacement at moulded draught = 85 per cent. of moulded depth			See Disp. Scale tons	
Coefficient of fineness for use with Tables 772			attached.	

Port of Survey	SOUTHAMPTON.
Date of Survey	MAY. 1950.
Surveyor's Signature	GEO. Smart
Particulars of Classification	Contemplate

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth 40.5	(a) Where D is greater than Table depth (D-Table depth) B =		Moulded Breadth (B)	74.0'
Stringer plate08	(40.58 - 33.98) 3" + 16.74"		Standard Round of Beam = $\frac{B \times 12}{50}$	= 17.76"
Sheathing on exposed deck	-	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	= 18.00"
T $\left(\frac{L-S}{L}\right) =$	-			Difference	.24"
Depth for Freeboard (D) =	40.58	If restricted by superstructures		Restricted to	.24
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$	= $\frac{.24}{4} \times .8913 = -.05$

	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 (equiv ^{lt})	34.83	34.83	7.5	✓	34.83
" overhang aft ...	1.17	.88			.88
" overhang forward ...					
F'cle enclosed - OPEN	40.00	21.35			21.35
" overhang (equiv ^{lt})	38.40		7.5		
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	76.00	57.06			57.06

Standard Height of Superstructure 7.5 ✓

" " R.Q.D. ✓

Deduction for complete superstructure 42.00 ✓

Percentage covered $\frac{S}{L} = 14.48$ ✓

" " $\frac{S_1}{L} = \left. \begin{matrix} \\ E \end{matrix} \right\} 10.87$ ✓

" " $\frac{E}{L} =$ ✓

Percentage from Table, Line ~~A~~ **TANKER** 7.61 ✓

(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 = $42.00 \times .0761 = -3.20$ ✓

Standard Height of Superstructure 7.5 ✓

" " R.Q.D. ✓

Deduction for complete superstructure 42.00 ✓

Percentage covered $\frac{S}{L} = 14.48$ ✓

" " $\frac{S_1}{L} = \left. \begin{matrix} \\ E \end{matrix} \right\} 10.87$ ✓

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Percentage from Table, Line ~~A~~ **TANKER** 7.61 ✓

(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 = $42.00 \times .0761 = -3.20$ ✓

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	62.50	1	62.50	67.25	67.25	1	67.25
$\frac{1}{2}$ L from A.P. ...	27.81	4	111.24	13.00	13.00	4	52.00
$\frac{2}{3}$ L „ ...	6.875	2	13.75	NIL	✓	2	✓
Amidships ...	-	4	✓	NIL	✓	4	✓
$\frac{2}{3}$ L from F.P. ...	13.75	2	27.50	NIL	✓	2	✓
$\frac{1}{2}$ L „ ...	55.62	4	222.48	19.25	19.25	4	77.00
F.P. ...	125.00	1	125.00	120.00	120.00	1	120.00
Total ...			562.47				316.25

Mean actual sheer aft = $\frac{67.25}{4} = 16.8125$

Mean standard sheer aft = $\frac{52.00}{4} = 13.00$

Mean actual sheer forward = $\frac{77.00}{4} = 19.25$

Mean standard sheer forward = $\frac{52.00}{4} = 13.00$

Length of enclosed superstructure forward of amidships = $\frac{27.50}{4} = 6.875$

„ „ aft of „ = $\frac{13.75}{4} = 3.4375$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{246.22}{18} \left(.75 - \frac{.0724}{2 \times 120} \right) = + 9.27'$

If limited on account of midship superstructure. $\frac{246.22}{18} = 13.68$ $\frac{.0724}{240} = .0003$ $.6776$ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.		Correction for coefficient $\frac{68+772}{1.36} = 1.452$
Depth to Freeboard Deck = 40.58 Ft.	Displacement in salt water at summer load water line $\Delta = 27250$	Depth Correction 16.74
Summer freeboard = 10.19	Tons per inch immersion at summer load water line $T = 81.685$	Deduction for superstructures 3.20
Moulded draught (d) = 30.39		Sheer correction 9.27
		Round of Beam correction05
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.6" = 7 1/2"	Deduction = $\frac{\Delta}{40 T}$ inches = 8.34"	Correction for Thickness of Deck amidships
Addition for Winter North Atlantic Freeboard (if required) = 7.60 + 5.25 = 12 3/4"		Other corrections, scantlings, etc.
		Summer Freeboard = 22.25

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood , Steel, Deck :-							
Tropical Fresh Water Line above Centre of Disc	15 1/2	✓		Tropical Fresh Water Freeboard	0 0 0 0	2 1/4	✓
Fresh Water Line	8	✓		Fresh Water	0 0 0 0	0 3/4	✓
Tropical Line	7 1/2	✓		Tropical	0 0 0 0	0 3/4	✓
Winter Line below	7 1/2	✓		Winter	0 0 0 0	0 3/4	✓
Winter North Atlantic Line	13 3/4	✓		Winter North Atlantic	0 0 0 0	0 3/4	✓

Esso Belfast.

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.

Sheer forward

Standard

125.00 ✓ 1 ✓ 125.00 ✓
 55.62 ✓ 3 ✓ 166.86 ✓
 13.75 ✓ 3 ✓ 41.25 ✓
 333.11 ✓

Actual

120.00 ✓ 1 ✓ 120.00 ✓
 19.25 ✓ 3 ✓ 57.75 ✓
 0 3 0
 177.75 ✓

177.75
 333.11 = 53.37% ✓

S. S.
 Forecastle 40.00 x 53.37 = 21.35 ✓

Bridges

Length = 36.00 ✓
 $22.67 \times 3.83 = 86.54$
 $74.0 \div 34.83 = 2.12$

Trade of ship Tanker

Names of sister ships -

Builder's name and yard number Federal S.B. & D.D. Co. Kearny N.J.

Owners Anglo-American Oil Co. Ltd.

Fee £

36



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