

Preliminary

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 37871
(For London Office only).

Ship's Name Doxford 734/5	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 463.46 ✓ Breadth 61.75 ✓ Depth 34.04 ✓ <i>to centre of midship stow.</i>					Date of Survey 12-1-45
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18,197 ✓ tons					Surveyor's Signature
Coefficient of fineness for use with Tables .769 ✓					Particulars of Classification 100% carrying petroleum in bulk (contaminated)

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 34.04 ✓	(a) Where D is greater than Table depth (D - Table depth) R = (34.04 - 30.89) × 3 = + 9.66 ✓ 3.22	Moulded Breadth (B) 61.75 ✓
Stringer plate 3/4076 ✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.82 ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	If restricted by superstructures	Ship's Round of Beam = 15.50 ✓
Depth for Freeboard (D) = 34.180		Difference = .68 ✓
		Restricted to
		Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) =$.68/4 = .17 ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>Egipio</i>	96.79 ✓	96.79 ✓	8.0	-	96.79 ✓	Standard Height of Superstructure 7.5' ✓
„ overhang ...	1.33 ✓	.66 ✓	-	-	.66 ✓	„ „ R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 42 ✓
„ overhang						Percentage covered $\frac{S}{L} =$ 41.76 ✓
Bridge enclosed <i>Egipio</i>	42.67 ✓	42.67 ✓	8.0	-	42.67 ✓	„ „ $\frac{S_1}{L} =$ 41.33 ✓
„ overhang aft	3.50 ✓	2.63 ✓	-	-	2.63 ✓	„ „ $\frac{E}{L} =$ 32.33 ✓
„ overhang forward	.83 ✓	.42 ✓	-	-	.42 ✓	Percentage from Table, Line A. 32.33 ✓
Fore enclosed <i>Egipio</i>	48.40 ✓	48.40 ✓	8.0	-	48.40 ✓	(corrected for absence of forecastle (if required))
„ overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
„ forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft						Deduction = 42 × 32.33 = - 13.58 ✓
„ „ forward						
Total	193.52	191.57			191.57	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	56.35 ✓	1		56.35 ✓	56 ✓	56.35 ✓	1		56.35 ✓	Mean actual sheer aft = <i>mean</i>
1/8 L from A.P. ...	25.075 ✓	4		100.30 ✓	25 ✓	25.075 ✓	4		100.30 ✓	Mean actual sheer forward = <i>deficient</i>
3/8 L „ ...	6.195 ✓	2		12.39 ✓	6.25 ✓	6.195 ✓	2		12.39 ✓	Mean standard sheer forward
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships =
5/8 L from F.P. ...	12.39 ✓	2		24.78 ✓	12.125 ✓	12.125 ✓	2		24.25 ✓	„ „ aft of „ = <i>Tanker deck offset</i>
1/2 L „ ...	50.15 ✓	4		200.60 ✓	50.25 ✓	50.25 ✓	4		202.00 ✓	
F.P. ...	112.69 ✓	1		112.69 ✓	111.25 ✓	111.25 ✓	1		111.25 ✓	
Total				507.11					505.54	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) =$ **1.57 (.75 - .2088) = + .05** ✓
If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 34.180 Summer freeboard = 6.64 ✓ Moulded draught (d) = 27.476 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.87 = 6 3/4 ✓ Addition for Winter North Atlantic Freeboard (if required) = 6.87 + 4.63 = 11.50 = 11 1/2 ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 17,274 ✓ Tons per inch immersion at summer load water line $T =$ 58.5 ✓ Deduction = $\frac{\Delta}{40T}$ inches = 7.38 = 7 1/2 ✓	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.769 + .68}{1.36} = \frac{1.449}{1.36}$ ✓ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>9.66</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>13.58</td> </tr> <tr> <td>Sheer correction</td> <td>.05</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td>.10</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>.18</td> <td>-</td> </tr> <tr> <td>Summer freeboard</td> <td>79.75</td> <td>-3.97</td> </tr> </table>		+	-	Depth Correction	9.66	-	Deduction for superstructures	-	13.58	Sheer correction	.05	-	Round of Beam correction	-	.10	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	.18	-	Summer freeboard	79.75	-3.97
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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 ... 14 1/4 ✓	Tropical Fresh Water Freeboard ... 6 - 7 3/4 ✓
Fresh Water Line „ „ ... 7 1/2 ✓	Fresh Water „ „ ... 5 1/2 ✓
Tropical Line „ „ ... 6 3/4 ✓	Tropical „ „ ... 5 1/4 ✓
Winter Line below „ „ ... 6 1/4 ✓	Winter „ „ ... 5 1/2 ✓
Winter North Atlantic Line „ „ ... 11 1/2 ✓	Winter North Atlantic „ „ ... 7 - 7 1/4 ✓

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.

Poof

$$\begin{array}{r} 98.37 \checkmark \\ 93.62 \checkmark \\ \hline 4.75 \times \frac{2}{3} = 3.17 \checkmark \\ \hline 93.62 \checkmark \\ 96.79 \checkmark \end{array}$$

$$\begin{array}{r} 4.50 \checkmark \\ 3.17 \checkmark \\ \hline 1.33 \checkmark \end{array}$$

Bridge

$$\begin{array}{r} 44.00 \checkmark \\ 40.00 \checkmark \\ \hline 4.00 \times \frac{2}{3} = 2.67 \checkmark \\ \hline 40.00 \checkmark \\ 42.67 \checkmark \end{array}$$

$$\begin{array}{r} 3.50 \checkmark \\ 2.67 \checkmark \\ \hline .83 \checkmark \end{array}$$

File

$$\begin{array}{r} 55.71 \checkmark \\ \text{Run } \frac{13.5 \times 10}{25.87} = 5.22 \checkmark \\ \frac{18 \times 3}{25.87} = 2.09 \checkmark \\ \hline 48.40 \checkmark \end{array}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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Foundation