

MAY 31 1937

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

58443

Ship's Name "OPEPE"	Official Number 160294	Nationality and Port of Registry British. Newry.	Gross Tonnage 361.66	Date of Build 1937.	Port of Survey Glasgow.
Moulded Dimensions: Length 142.29' Breadth 23.5' Depth 11.42' Moulded displacement at moulded draught = 85 per cent. of moulded depth 654 tons Coefficient of fineness for use with Tables .705					Date of Survey May 1937. Surveyor's Signature <i>W. S. Simpson</i> Particulars of Classification +100 A1. Class Contemplated.

Depth for Freeboard (D).				Depth correction.	Round of Beam correction.
Moulded depth	...	...	...	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B)
Stringer plate	...	...	...	(11.45-9.49) × 1.094 = +2.14	Standard Round of Beam = $\frac{B \times 12}{50}$ =
Sheathing on exposed deck				(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam =
T $\left(\frac{L-S}{L}\right)$ =					Difference
Depth for Freeboard (D) =				If restricted by superstructures	Restricted to
					Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right)$ =

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 ...	81.12.	81.12	3' 3 1/2	-	81.12
„ overhang ...					
Bridge enclosed...	7.16	7.16	6'-9"	-	7.16
„ overhang aft ...					
„ overhang forward	22.40				
F'cle enclosed <i>open.</i>	24.50	17.31	7'-0"	-	17.31
„ overhang ...	20.40				
Trunk aft ...					
„ forward...					
Tonnage opening aft ...					
„ „ forward					
Total ...	108.68	105.59			105.59

Standard Height of Superstructure.....	6.00
" " R.Q.D.	3.282
Deduction for complete superstructure.....	20.23
Percentage covered $\frac{S}{L} =$	76.38
" " $\frac{S_1}{L} =$	74.22
" " $\frac{E}{L} =$	74.22
Percentage from Table, Line A. 68.19	
(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 =	20.23 x .6819 = - 13.79

SHEER CORRECTION.

Station	Standard Ordnate	S M	Product	Actual Ordnate	Effective Ordnate	S M	Product
A.P. ...	24.23 26.5	1	24.23	26.5	26.50	1	26.5
$\frac{1}{8}$ L from A.P. ...	10.78 12.5	4	43.12	12.5	12.50	4	50.0
$\frac{3}{8}$ L " ...	2.665 3.5	2	5.33	3.5	3.50	2	7.0
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{8}$ L from F.P. ...	5.33 6	2	10.66	6.0	6.00	2	12.0
$\frac{1}{8}$ L " ...	21.56 22	4	86.24	22.0	22.00	4	88.0
F.P. ...	48.5 48.5	1	48.46	48.5	48.50	1	48.5
Total ...			218.04				232.0

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} = 1.00$$
$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} = \text{Excess}$$
$$\frac{\text{Length of enclosed superstructure}}{L} \text{ forward of amidships} = 0.14$$

“ “ aft of “ = 5.12

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{8}{2L} \right) = \frac{13.96}{18} (.75 - \frac{3819}{3681}) = -.29$
 If limited on account of midship superstructure. If line

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 Fresh Deck (if required)		14.50																								
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Correction for coefficient		14.77																								
Depth to Freeboard Deck = 14.42		$\Delta = 782 \text{ tons at } 11.2 \frac{1}{4} "$		$\frac{705 + 68}{1.36} = \frac{1.385}{1.36} =$																										
Summer freeboard = 3.52		Tons per inch immersion at summer load water line		<table border="1"> <thead> <tr> <th></th><th>+</th><th>-</th></tr> </thead> <tbody> <tr> <td>Depth Correction</td><td>2.14</td><td>-</td></tr> <tr> <td>Deduction for superstructures</td><td>-</td><td>13.79</td></tr> <tr> <td>Sheer correction</td><td>-</td><td>.29</td></tr> <tr> <td>Round of Beam correction</td><td>-</td><td>.12</td></tr> <tr> <td>Correction for Thickness of Deck amidships</td><td>39.50</td><td>-</td></tr> <tr> <td>Other corrections, scantlings, etc.</td><td>-</td><td>-</td></tr> <tr> <td></td><td>41.64</td><td>14.20</td></tr> </tbody> </table>			+	-	Depth Correction	2.14	-	Deduction for superstructures	-	13.79	Sheer correction	-	.29	Round of Beam correction	-	.12	Correction for Thickness of Deck amidships	39.50	-	Other corrections, scantlings, etc.	-	-		41.64	14.20	
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	41.64	14.20																												
Moulded draught (d) = 11.22		T = 6.66				31.5 - 27 = 4.5																								
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.80 = 2 $\frac{3}{4}$		Deduction = $\frac{\Delta}{40 T}$ inches = 2.93 = 3																												
Addition for Winter North Atlantic Freeboard (if required) = 4 $\frac{3}{4}$																														
						41.64 + 14.20 = 55.84																								
						Summer Freeboard = 42.21																								

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ ^{Raised from} Steel/Deck:—

Tropical Fresh Water Line above Centre of Disc ...	...	...	3 3/4	Tropical Fresh Water Freeboard ...	...	...	3 - 2 1/2
Fresh Water Line " " ...	...	...	3	Fresh Water " " ...	...	...	3 - 3 1/4
Tropical Line " " ...	...	...	3/4	Tropical " " ...	...	...	3 - 5 1/2 (limited)
Winter Line below " " ...	...	...	2 3/4	Winter " " ...	...	...	3 - 9
Winter North Atlantic Line " " ...	...	...	5 3/4	Winter North Atlantic " " ...	...	...	3 - 11

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.

Trade of ship: International.

Names of sister ships S.S. "BROOM. S.S. "PRIVET." S.S. "THORN."

Builder's name and yard number Scott & Son, Bowling W. Glasgow

Owners J. Fisher & Sons Ld. Newry

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Fee £ 6 : 0 : 0