

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name BRITISH PIPER (EX - EMPIRE GRENADA)	Official Number 16946	Nationality and Port of Registry BRITISH GLASGOW LONDON.	Gross Tonnage 8231 8238 <i>Imp T 4/7/46</i>	Date of Build 1946	Port of Survey GLASGOW Date of Survey MARCH 1946 Surveyor's Signature H. DICKERSON Particulars of Classification 100A1 CARRYING PETROLEUM IN BULK.
Moulded Dimensions: Length 460.96 Breadth 59.0 Depth 34.83 TO CENTRE RIGGER STOCK					
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18207 tons					
Coefficient of fineness for use with Tables .791					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 34.83	(a) Where D is greater than Table depth (D-Table depth) R = $(34.90 - 30.73)3.0 = + 12.51$	Moulded Breadth (B) 59.0
Stringer plate07	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 4.17	Standard Round of Beam = $\frac{B \times 12}{50} = 14.16$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 14.75
Depth for Freeboard (D) = 34.90		Difference .59
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.59}{4} \times .576 = -.08$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIN ...	96.70	96.70	7.5	✓	96.70
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed EQUIN ...	50.83	50.83	7.5	✓	50.83
" overhang aft ...	2.92	2.19			2.19
" overhang forward ...					
F'cle enclosed ...	45.75	45.75	7.5	✓	45.75
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	196.20	195.47			195.47

Standard Height of Superstructure **7.5**
" " R.Q.D. **-**
Deduction for complete superstructure **42.0**
Percentage covered $\frac{S}{L} = 42.56$
" " $\frac{S_1}{L} =$ } **42.40**
" " $\frac{E}{L} =$ }
Percentage from Table, Line **TANKER** = **33.40**
(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 = **42.0 x 33.40 = - 14.03**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	56.10	1		56.10	46.66	46.66	1		46.66
$\frac{1}{2}L$ from A.P. ...	24.96	4		99.84	7.67	7.67	4		30.68
$\frac{2}{3}L$ " ...	6.17	2		12.34	-	-	2		-
Amidships ...	-	4		-	-	-	4		-
$\frac{2}{3}L$ from F.P. ...	12.34	2		24.68	-	-	2		-
$\frac{1}{2}L$ " ...	49.92	4		199.68	30.62	30.62	4		122.48
F.P. ...	112.19	1		112.19	101.68	101.68	1		101.68
Total ...				504.83					301.50

Mean actual sheer aft =
Mean standard sheer aft = } **DEFICIENT**
Mean actual sheer forward =
Mean standard sheer forward = }
Length of enclosed superstructure forward of amidships = } **TANKER**
" " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{203.33}{18} (.75 - .2128) = + 6.07$
If limited on account of midship superstructure. ✓
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

<p>Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.</p> <p style="text-align: right;">Ft.</p> <p>Depth to Freeboard Deck = 34.90</p> <p>Summer freeboard = 7.40</p> <p>Moulded draught (d) = 27.50</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.875 = 6$\frac{7}{8}$"</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 6.87 + 4.61 = 11.48 = 11$\frac{1}{2}$"</p>	<p style="text-align: center;">Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line $\Delta = 16833$</p> <p>Tons per inch immersion at summer load water line T = 56.38</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches = 7.46 = 7$\frac{1}{2}$"</p>	<p style="text-align: center;">TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.791 + .68}{1.36} = \frac{1.471}{1.36}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Depth Correction ...</td> <td style="text-align: center;">12.51</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">14.03</td> </tr> <tr> <td>Sheer correction ...</td> <td style="text-align: center;">6.07</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Round of Beam correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.08</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td></td> <td style="text-align: center;">18.58</td> <td style="text-align: center;">14.11</td> </tr> </table> <p style="text-align: right;">Summer Freeboard = 88.77</p>		+	-	Depth Correction ...	12.51	-	Deduction for superstructures ...	-	14.03	Sheer correction ...	6.07	-	Round of Beam correction ...	-	.08	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		18.58	14.11
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wash~~ Steel, Deck :-

<p>FRESHWATER AS PREVIOUSLY ASSIGNED BY BRITISH CORPORATION. NOW REASSIGNED. 16.5.46</p>	<p>Tropical Fresh Water Line above Centre of Disc ... 14$\frac{1}{2}$"</p> <p>Fresh Water Line " " ... 7$\frac{1}{2}$"</p> <p>Tropical Line " " ... 7"</p> <p>Winter Line below " " ... 7"</p> <p>Winter North Atlantic Line " " ... 11$\frac{1}{2}$"</p>
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Tropical Fresh Water Freeboard ... **7-4 $\frac{1}{2}$ "**
Fresh Water " ... **6-2"**
Tropical " ... **6-9"**
Winter " ... **6-9 $\frac{1}{2}$ "**
Winter North Atlantic " ... **7-11 $\frac{1}{2}$ "**
8-4"