

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

N^o 34491

Ship's Name "BRITISH PRINCESS"	Official Number 180928	Nationality and Port of Registry British London	Gross Tonnage 8582	Date of Build 1946	Port of Survey Sunderland
Moulded Dimensions: Length 463.46' Breadth 61.75' Depth 34.08' <i>To centre of main deck</i>					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18231 tons					Surveyor's Signature A.S. Forsyth
Coefficient of fineness for use with Tables 7696.77					Particulars of Classification +100A.1 Carrying Petroleum in Bulk

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 34.08	(a) Where D is greater than Table depth (D - Table depth) R = (34.14 - 30.89) 3 = + 9.75.	Moulded Breadth (B) 61.75
Stringer plate06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 3.25	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 = 15.5"
Depth for Freeboard (D) = 34.14		Difference 0.68
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$.68 x .5828 = .10

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equip</i>	96.79	96.79	8.0'		96.79
" overhang ...	1.33	.66			.66
R.Q.D. enclosed					
" overhang <i>Equip</i>	42.67	42.67	8.0'		42.67
Bridge enclosed <i>Equip</i>	3.50	2.63			2.63
" overhang aft ...	0.83	.42			.42
" overhang forward					
F'cle enclosed <i>Equip</i>	50.18	50.16	8.0'		50.16
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	195.30	193.33			193.33

Standard Height of Superstructure	7.5'
" " R.Q.D.	
Deduction for complete superstructure	42.0
Percentage covered $\frac{S}{L} =$	42.14
" " $\frac{S_1}{L} =$	41.72
" " $\frac{E}{L} =$	32.72
Percentage from Table, Line A <i>Tanker</i>	32.72
(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 .3272 = 13.74

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	56.35'	1		56.35'	56.0	56.0	1		56.00
$\frac{1}{2}$ L from A.P. ...	25.075'	4		100.30	25.0	25.0	4		100.00
$\frac{2}{3}$ L " ...	6.198	2		12.39	6.25	6.25	2		12.50
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	12.39	2		24.78	12.125	12.125	2		24.25
$\frac{1}{2}$ L " ...	50.15'	4		200.60	50.25	50.25	4		201.00
F.P. ...	112.69	1		112.69	111.25	111.25	1		111.25
Total ...				507.11					505.00

Mean actual sheer aft = **< 1**
Mean standard sheer aftMean actual sheer forward = **< 1**
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = **not applicable**
" " aft of " = **not applicable**Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{2.11}{18} \left(\frac{75-210.7}{2} \right) = +.06$
If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.Depth to Freeboard Deck = **34.14**
Summer freeboard = **6.64**
Moulded draught (d) = **27.50**Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.875**
Addition for Winter North Atlantic Freeboard (if required) = **6.87 + 4.63 = 11.5**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$ **17300**
Tons per inch immersion at summer load water line
 $T =$ **58.30**Deduction = $\frac{\Delta}{40T}$ inches
= **7.42**
= **7½**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.77 + .68}{1.36} = \frac{1.45}{1.36}$
Depth Correction ... **9.75**
Deduction for superstructures ... **13.74**
Sheer correction ... **0.06**
Round of Beam correction ... **0.10**
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...Summer Freeboard = **79.74**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	14¼	Tropical Fresh Water Freeboard ...	5½
Fresh Water Line " " ...	7½	Fresh Water " " ...	6 - 0¼
Tropical Line " " ...	6¾	Tropical " " ...	6 - 1½
Winter Line below " " ...	6¾	Winter " " ...	7 - 7¼
Winter North Atlantic Line " " ...	11½	Winter North Atlantic " " ...	

British Princess.

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.

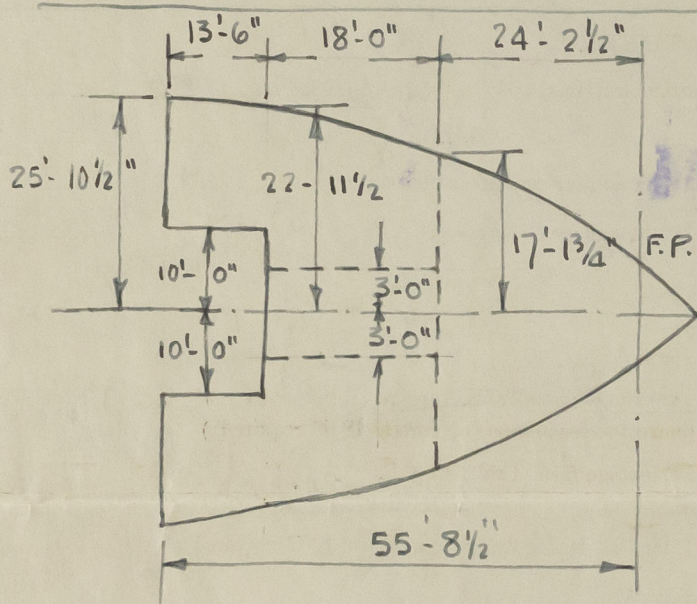
(EXTREME)
Displacement, at Summer Load draught = 17,298 tons
Tons per inch " " " " = 58.15 tons.

Equivalent length of Poop.

length at centre = 98.371'
" " side = 93.621'
 $4.750 \times \frac{2}{3} = 3.17$
 $\frac{93.62}{3} = 31.21$
Equivalent enclosed length = 96.79
Equivalent overhang = 4.5
 $\frac{3.17}{1.33} = 2.38$

Equivalent length of Bridge

length at centre = 44'-0"
" " side = 40'-0"
 $4.0 \times \frac{2}{3} = 2.67$
 $\frac{40.00}{2.67} = 15.00$
Equiv. enclosed length = 42.67
Overhang forward = 3.1'
Equiv. overhang = 0.83
Overhang aft = 3.5



Forecastle Equivalent length

Length forward of passage = 24.21
Length at side of passage
 $\frac{22.96 + 17.14}{2} = 20.05$
 $\frac{18 \times 17.05}{20.05} = 15.31$
Passage
 $(18.0 - 15.31) \times .993 = 2.69$
+ 2.67

Sidehouses

$\frac{25.87 + 22.96}{2} = 24.42$
 $\frac{10.00}{14.42} = 0.69$
 $\frac{13.5 \times 14.42}{24.42} = 7.97$

Mean forward

Standard

12.39 3 37.17
50.15 3 150.45
112.69 1 112.69
300.31

Actual

12.121' 3 36.37
50.25 3 150.75
111.25 1 111.25
298.37

$\frac{298.37}{300.31} = .993$

Equivalent Covered length

24.21
18.0
42.21
 $\frac{13.1 \times 14.42}{24.42} = 7.97$
50.18

Trade of ship Tanker

Names of sister ships

M. & "BRITISH MARQUIS" (YARD N° 735) by Wm. Oxford & Son, Ltd.

Builder's name and yard number

Sir James Laing & Sons, Ltd. Yard N° 768

Owners

British Tanker Co., Ltd.

Fee £

19 0 0

(Will be charged on F.E.)



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Foundation