



Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "BRITISH ARDOUR"	Official Number 183137	Nationality and Port of Registry BRITISH, LONDON.	Gross Tonnage 8616	Date of Build 1949	Port of Survey NEWCASTLE-on-TYNE
Moulded Dimensions: Length 463'-5 1/2" Breadth 61'-9" Depth 34'-1"					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18224 tons (incl. Cruiser Stern)					Surveyor's Signature W. Robinson
Coefficient of fineness for use with Tables .769					Particulars of Classification Contemplated +100 A1. Carrying Petroleum in Bulk.

DEPTH FOR FREEBOARD (D). Moulded depth ... 34.08 Stringer plate .88 (in max. of midship frame) .72 Sheathing on exposed deck none $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.14	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (34.14-30.89) x 3 = +9.75 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 61.75 Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.82 Ship's Round of Beam 15 1/2 = 15.5 Difference .68 Restricted to Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) =$.68 x .833 = .57
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DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure 7.5'
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	" " R.Q.D. 42.00'
Poop enclosed	96.30	96.30	8.0	-	96.30	Deduction for complete superstructure
" overhang	4.92	.92			.92	Percentage covered $\frac{S}{L} =$ 42.14
R.Q.D. enclosed	1.83					" " $\frac{S_1}{L} =$ 44.67
" overhang						" " $\frac{E}{L} =$ 32.67
Bridge enclosed	42.67	42.67	8.0	-	42.67	Percentage from Table, Line A Tanker 32.67
" overhang aft	3.50	2.63			2.63	(corrected for absence of forecastle (if required))
" overhang forward	5.83	.42			.42	Percentage from Table, Line B
Fore enclosed	50.17	50.17	8.0	-	50.17	(corrected for absence of forecastle (if required))
" overhang						Interpolation for bridge less than .2L (if required)
Trunk aft						Deduction = 42 x .3267 = -13.72
" forward						
Tonnage opening aft						
" forward						
Total	195.31	193.11			193.11	

SHEER CORRECTION. (Deck level from 17'3" fore of After Peak - aft).							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P. 17'25"	56.35	1		56.35	56.35	56.35	1
1/2 L from A.P. ...	25.075	4		100.30	25"	25.075	4
1/2 L " ...	6.198	2		12.39	6 1/4"	6.198	2
Amidships ...		4					4
1/2 L from F.P. ...	12.39	2		24.78	12 1/4"	12.25	2
1/2 L " ...	50.15	4		200.60	50 1/4"	50.25	4
F.P. ...	112.69	1		112.69	111 1/4"	111.25	1
Total ...				507.11			
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75-S}{2L} \right) = \frac{1.32(.75-.2107)}{18} = +.04$							
If limited on account of midship superstructure.							
Mean actual sheer aft = >1							
Mean standard sheer aft = >1							
Mean actual sheer forward = <1							
Mean standard sheer forward = <1							
Length of enclosed superstructure forward of amidships = Tanker not applicable							
" " aft of " = Tanker not applicable							

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 34.15 Summer freeboard = 6.65 Moulded draught (d) = 27.50 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.875 = 6 3/4 Addition for Winter North Atlantic Freeboard (if required) = 6.87 + 4.63 = 11 1/2	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 7297 Tons per inch immersion at summer load water line $T =$ 58.45 Deduction = $\frac{\Delta}{40 T}$ inches = 7.44 = 7 1/2	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{769+.68}{1.36} = \frac{1.449}{1.36}$ Depth Correction ... 9.75 Deduction for superstructures ... 13.72 Sheer correction04 Round of Beam correction10 Correction for Thickness of Deck amidships16 Other corrections, scantlings, etc.95 Summer Freeboard = 79.84
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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	... 5.1
Fresh Water Line	... 7 1/2	Fresh Water	... 5.1
Tropical Line	... 6 3/4	Tropical	... 6.1
Winter Line below	... 6 3/4	Winter	... 7.1
Winter North Atlantic Line	... 11 1/2	Winter North Atlantic	... 7.1

British Ardour.

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.

Draft	Extl Displ.	T.P.I.
27'-0"	16890	57.90
28'-0"	17589	58.32

(Incl. Cruiser Stern).

Poop at Side 93.625
 $\frac{2}{3} \times 4 = 2.67$
 96.30

Equip change 452.67 = 1.83

Bridge at Side 40
 $\frac{2}{3} \times 4 = 2.67$
 42.67

Front change 3.5 - 2.67 = .83'

Forecastle

Length forward of alleyway = 24.21'

Length at Side of passage
 $\frac{18 \times 17.05}{20.05} = 15.31$

Passage (18 - 15.31) x .995 = 2.68

Richrooms $\frac{25.87 + 22.96}{2} = 24.42$
 $\frac{-10}{14.42}$

$\frac{13.5 \times 14.42}{24.42} = 7.97$

Equip under length 50.17

38753

Trade of ship International

Names of sister ships "British Earl"

Builder's name and yard number Swan Hunter & Wigham Richardson Ltd. N° 1866

Owners British Tanker Co Ltd.

Fee £ 5



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Foundation