

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Port. Bridge. Incastle.

Port of Survey Newcastle on Tyne

Date of Survey 3<sup>rd</sup> December 1934.

Name of Surveyor John A. Brown

Particulars of Classification +100 A.I.  
10. Sub Not-28

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
ARLINGTON COURT.	LONDON. BRITISH.	147644	4915	1924.5

Moulded Dimensions: Length 395.3 ✓ Breadth 53.0 ✓ Depth 29.0 ✓

Moulded displacement at moulded draught = 85 per cent. of moulded depth 11650 tons

Coefficient of fineness for use with Tables .790 ✓

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	29.00	(a) Where D is greater than Table depth (D - Table depth) R = $(29.03 - 26.35) 3.00$ $= + 8.04$ ✓		Moulded Breadth (B)	53.00
Stringer plate	.03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓		Standard Round of Beam = $\frac{B \times 12}{50}$	12.72"
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ ✓		If restricted by superstructures ✓		Ship's Round of Beam	13
Depth for Freeboard (D) =	29.03			Difference	.28" excess
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$= \frac{.28}{4} \times \frac{.485}{.4833} = -.03$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	46.00	46.0	8.0	✓	46.00
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...	118.19	118.20			118.19
Bridge enclosed, <u>equivalent</u>	119.16	119.16	8.0	✓	119.16
" overhang aft ...	.98	.73			.73
" overhang forward	38.67	38.67			38.67
F'cle enclosed <u>open</u>	39.08	39.08	8.0	✓	39.08
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward	203.84	203.59			203.59
Total ...	204.24	204.24			204.24

Standard Height of Superstructure	7.453	✓
" " R.Q.D.	✓	
Deduction for complete superstructure	41.69	✓
Percentage covered $\frac{S}{L} =$	51.56%	
" " $\frac{S_1}{L} =$	51.50%	
" " $\frac{E}{L} =$	51.69%	
Percentage from Table, Line A.	✓	
(corrected for absence of forecastle (if required))		
Percentage from Table, Line B.	37.59%	
(corrected for absence of forecastle (if required))		
Interpolation for bridge less than 2L (if required)		
Deduction =	41.69 × .3750 = 15.64	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	49.53	1		49.53	60	60.00	1		60.00
$\frac{1}{2}$ L from A.P. ...	22.04	4		88.16	26	26.00	4		104.00
$\frac{3}{4}$ L " ...	5.45	2		10.90	62	6.50	2		13.00
Amidships ...	✓	4		-	✓	✓	4		✓
$\frac{3}{4}$ L from F.P. ...	10.90	2		21.80	12.30	12.30	2		24.60
$\frac{1}{2}$ L " ...	44.08	4		176.32	49.40	49.40	4		197.60
F.P. ...	99.06	1		99.06	113.5	113.50	1		113.50
Total ...				445.77					572.70

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{66.93}{18} \left( .75 - \frac{.2578}{.4923} \right) = -1.83$  ✓

If limited on account of midship superstructure. ✓

Mean actual sheer aft = Excess  
Mean standard sheer aft = Excess

Mean actual sheer forward = Excess  
Mean standard sheer forward = Excess

Length of enclosed superstructure forward of amidships = > 1L

" " aft of " = > 1L

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = Ft.  
Summer freeboard =  
Moulded draught (d) =

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T = See Page 12

Deduction =  $\frac{\Delta}{40T}$  inches =

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.79 + .69}{1.36} = \frac{1.47}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

70.05

75.72

87.8

812.3

8.04

17.56

1.83

.03

.30

9.52

Summer Freeboard = 66.20

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

Tropical Fresh Water Line above Centre of Disc ...  
Fresh Water Line " " ...  
Tropical Line " " ...  
Winter Line below " " ...  
Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...  
Fresh Water " " ...  
Tropical " " ...  
Winter " " ...  
Winter North Atlantic " " ...

5'-6 1/4"

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Foundation

W422-0078 1/2

190.6 freeboard reassigned.



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS																
FREEBOARD DECK										POOP			CASING TOP		BRIDGE D <sup>K</sup>	
Description of Hatchway	1	2	3	4	5	6	7	2 OFF CH.	4 OFF T.H.	TO STORE FOR	BRIDGE D <sup>K</sup> 3	4	5	POOP TO STORE	COAL HATCH	COAL HATCH
Dimensions of Hatchway	29.3	29.9	11.5	6.10	29.9	29.9	11.5	8.8	2.0	3.2	11.5	6.10	11.5	3.5	6.8	11.6
COAMINGS	Height above Deck 1 39" AT 2 CRE.	34 1/2	34 1/2	9"	9"	30"	30"	9"	9"	9"	30"	30"	30"	9"	9"	30"
	Thickness { Sides	44	44	8A	8A	44	44	8A	8A	8A	44	44	44	8A	8A	44
	Stiffeners	7 5/8	8 5/8	✓	✓	8 5/8	7 5/8	✓	✓	✓	✓	✓	✓	7 5/8	✓	✓
	Brackets, Stays	2	2	✓	✓	2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓
HATCH BEAMS	Number	5	5	1	1	5	5	1			5.9	3.5	5.9			
	Spacing	4.9	4.11	5.9	3.5	4.11	4.11	5.9								
	Scantling and Sketch	18-9 1/2	14-9	11-6 1/2	18-9 1/2	18-9 1/2	12-9	✓	✓	✓	7 1/2	11-6 1/2	12-9	✓	✓	✓
	Bearing Surface	3	3	3	3	3	3	3			3	3	3			
FORE AND AFTERS	Number															
	Spacing															
	Unsupported Lengths															
	Scantling* and Sketch	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HATCH COVERS	Material	WP									WP	WP	WP	WP	WP	WP
	Thickness	2 1/2									2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
	How fitted	F.A.									F.A.	F.A.	F.A.	F.A.	F.A.	ATH.
	Bearing Surface	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Spacing of Cleats		25	24	24	24	24	24	25	24	16	24	24	23	25	30	24
Number of Tarpaulins		2	2	1	1	2	2	2	1	1	2	2	2	2	2	2
<p>*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> YES</p> <p>Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> YES</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> YES</p> <p>Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> YES</p> <p>PERMANENT GRATINGS ON HINGES.</p>																

Particulars of fiddle, funnel and ventilator coamings:— Tunnel, and fiddle vents in efficient condition. Gratings have hinged covers with securing clips. Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:— none.

Particulars of Companionways:— none.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Fore Deck: 1 vent 8" dia. Coaming 35" x 1/4 to Fore Peak.  
 Forward well: 8 vents 23 1/2" dia. " 35" x 36 to hold.  
 Aft well: 6 vents 23 1/2" " 35" x 36 to hold.  
 Poop Deck: 2 Derrick posts to holds.  
 " 1 vent 11 1/2" dia. Coaming 30" x 1/4 to Tunnel.

Bop D<sup>K</sup>: 2 vents 9" dia. 30" coaming x 1/4 to Poop space.  
 " 1 7 1/2 " 30" " x 1/4 to Poop.  
 Bridge D<sup>K</sup>: 2 vents 23 1/2" dia. 35" coaming x 36 to hold.  
 " 4 vents 9" dia. 30" " x 36 to Bunker.  
 " 2 Derrick Posts to holds.

vents have wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Fore Deck: 1 S.N. air pipe 3" dia. 27 to lip. 30" to bend. Fore Peak.  
 Forward well: 1 S.N. air pipe 3" dia. 24 " 27 " O. Bottom (under fore D<sup>K</sup>).  
 " 4 S.N. air " 3 " 26 " 29 " O. Bottom.  
 Bridge Deck: 7 S.N. air pipes 3" dia. 26" to lip. 29" to bend to O. Bottom.

Aft well: 4 S.N. air pipes 3" dia. 26" to lip. 29" to bend.  
 Poop Deck: 1 S.N. air pipe 3" dia. 24 to lip. 27 to bend.  
 " 2 S.N. " 3 " 26 to lip. 29 ".

air pipes have wood plugs.

Particulars of Gangway Cargo and Coaling Ports:— none.



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Particulars of Scuppers and Sanitary Discharge Pipes:— Scupper and Sanitary discharges above and below freeboard deck have strong storm valves fitted. ✓  
2 scuppers (1 each side) have storm valves on ships side and bolted plate on freeboard deck.

Particulars of Side Scuttles:— Side Scuttles above freeboard deck have dead lights permanently attached fitted. ✓

Particulars of Guard Rails:— Fore Deck 2 Lier Stanchions 3'-3" high spaces 4'-6" apart. ✓  
Bridge Deck 3 Lier " 3'-3" " 4'-6" " ✓  
Poop Deck 2 Lier " 3'-0" " 4'-6" " ✓

Particulars of Gangways, Lifelines, etc.:— Provision made for fitting life line in forward and after well. ✓

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ... ..	99' 0" /	4'-0"	3'-6" x 1'-8 1/2" rectangular	4	23.70 $\phi$	19.80 $\phi$
Forward Well ... ..	90' 0"	4'-0"	3'-6" x 1'-6 1/2"	4	21.5 $\phi$	18.00 $\phi$
State position of each freeing port ... .. { After Well:— 1 <sup>st</sup> 3'-9" : 2 <sup>nd</sup> 35'-5" : 3 <sup>rd</sup> 59'-0" : 4 <sup>th</sup> 88'-0" aft of Bridge Bldg. 16' above 5 <sup>th</sup> (F. and A. position and height above deck edge) { Forward Well:— 1 <sup>st</sup> 6'-10" : 2 <sup>nd</sup> 28'-10" : 3 <sup>rd</sup> 52'-6" : 4 <sup>th</sup> 75'-3" forward " " 17' above 5 <sup>th</sup> . State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Swivel doors fitted. Additional area where sheer is less than standard.						

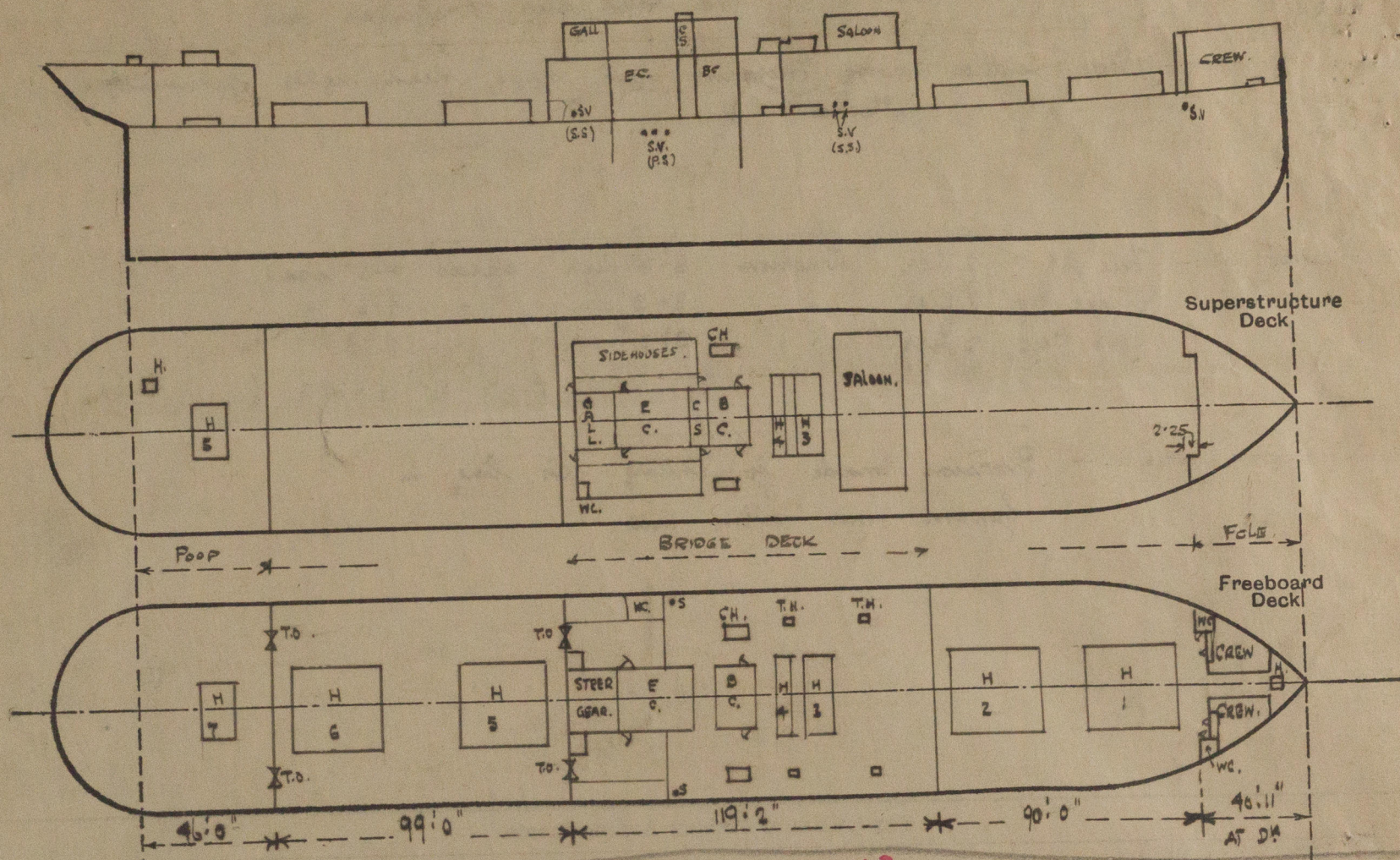
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.44 /	.44 /	6 x 3 = 40 L	30"	—	5'-0" x 3'-6"	18 /	8'-0"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.36 /	.36 /	3 x 3 1/2 = 36 L	34"	—	4'-6" x 3'-6"	18 /	8'-0"
Bridge, Forward Bulkhead ... ..	.46 /	.46 /	3 x 3 1/2 = 50 L	30"	Ups Top, Bottom.	—	—	8'-0"
Forecastle Bulkhead ... ..	.26 /	.26 /	3 x 3 = 26 L	33"	—	alleyway	—	8'-0"
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	.36 /	.36 /	3 1/2 x 3 = 26 L	34"	—	—	—	8'-0"
Exposed Machinery Casings on Superstructure Decks ... ..	.30 /	.30 /	3 1/2 x 3 = 30 L	30"-36"	—	5'-2" x 2'-3"	16 /	8'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.40 /	.26 /	3 1/2 x 3 = 30 L	36"-36"	—	5'-0" x 3'-0"	18 /	8'-0"
Deckhouses on Flush Deck Ships ...	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	3" weather boards in rivetted channels full height. ✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	3" weather boards in rivetted channels full height. ✓
Bridge, Forward Bulkhead ... ..	no openings. ✓
Forecastle Bulkhead ... ..	(allers way in centre 4'-0" wide. no coaming. Steel Ringed doors to slide down - W.C.S. - )
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	no opening. ✓
Exposed Machinery Casings on Superstructure Decks ... ..	Steel Ringed doors. operated both sides. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	Steel Ringed doors. operated both sides. ✓
Deckhouses on Flush Deck Ships ...	



*Arlington Court*

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo, and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



Bridge 119.187  
 Reels  $\frac{4.5 \times 5.67}{26.0} = \frac{- .98}{118.20.19}$

State any special features in the construction of the ship:— Vessel examined in dry dock.  
 Special survey is being completed at this time  
 No timber assignment required. ✓

Tons per inch.

Draft	23' 8 1/2"	42.5 Tons.
	23.0	42.4 "
	22.0	42.3 "
	21.0	42.1 "
	20.0	41.9 "
	19.0	41.7 "

Builder's name and yard number *Workman Clark & Co. Ltd. Belfast.*

Names of sister ships.

Owners *United British S.S. Co. Ltd.*

Fee £ 15 : 0 : 0

Received by me.



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