

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *POOP & Combined Bridge & Forecastle*Port of Survey *London*Date of Survey *25th July 1932*

(Type of Superstructures.)

Name of Surveyor *W. E. Ewing*

Ship's Name

Nationality and Port of Registry
*Barrow
British*

Official Number

Gross Tonnage

Date of Build

"OTRANTO"

146025

20032

1925.12

Moulded Dimensions: Length *630 ft* Breadth *75'-0"* Depth *37'-6" TO F.D.K.*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *29075* tons
 Coefficient of fineness for use with Tables *68* (*.676*)

Particulars of Classification *+100 A1
WITH FREEBOARD*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... <i>37'-6"</i>	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	<i>75'-0"</i>
Stringer plate	... <i>.04</i>			Standard Round of Beam = $\frac{B \times 12}{50}$	<i>18"</i>
Sheathing on exposed deck	... <i>.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	<i>6" where exposed</i>
$T \left(\frac{L-S}{L} \right) =$	<i>21 \left(\frac{630-541}{630} \right)</i>	<i>(42 - 37.57) 3 = 13.99</i>		Difference	<i>12"</i>
Depth for Freeboard (D) =	<i>37.57</i>	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$	<i>= \frac{12}{4} (.1509) = +.45</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>37'-10"</i>	<i>37.82</i>	<i>8'-0"</i>		<i>37.82</i>
overhang	<i>4'-10"</i>	<i>2.42</i>			<i>2.42</i>
R.Q.D. enclosed					
overhang					
Bridge enclosed					
overhang aft					
overhang forward	<i>486'-0"</i>	<i>486.0</i>	<i>8'-0" FORO</i>		<i>486.00</i>
Fore enclosed			<i>9'-6" AMIDSHIPS</i>		<i>9.25</i>
overhang	<i>12'-4"</i>				
Trunk aft					
forward					
Tonnage opening aft					
forward					
Total	<i>541.0</i>	<i>535.49</i>			<i>535.49</i>

Standard Height of Superstructure *7.5*
 " " R.Q.D. *42.00*
 Deduction for complete superstructure *42.00*
 Percentage covered $\frac{S}{L} =$ *.859*
 " " $\frac{S_1}{L} =$ *.8491*
 " " $\frac{E}{L} =$ *.8491*
 Percentage from Table, Line A.
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B.
 (corrected for absence of forecastle (if required)) *8138*
 Interpolation for bridge less than 2L (if required)
 Deduction = *34.18*

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<i>73.00</i>	<i>1</i>	<i>73.00</i>	<i>90" 9036</i>	<i>9036</i>	<i>1</i>	<i>9036</i>
$\frac{1}{2}$ L from A.P.	<i>32.49</i>	<i>4</i>	<i>129.96</i>	<i>48" 4503</i>	<i>4503</i>	<i>4</i>	<i>18012</i>
$\frac{2}{3}$ L " "	<i>8.03</i>	<i>2</i>	<i>16.06</i>	<i>23" 1126</i>	<i>1126</i>	<i>2</i>	<i>2252</i>
Amidships		<i>4</i>				<i>4</i>	
$\frac{2}{3}$ L from F.P.	<i>16.06</i>	<i>2</i>	<i>32.12</i>	<i>24" 2062</i>	<i>2062</i>	<i>2</i>	<i>4124</i>
$\frac{1}{2}$ L " "	<i>64.98</i>	<i>4</i>	<i>259.92</i>	<i>87" 8248</i>	<i>8248</i>	<i>4</i>	<i>32992</i>
F.P.	<i>146.00</i>	<i>1</i>	<i>146.00</i>	<i>162" 16200</i>	<i>16200</i>	<i>1</i>	<i>16200</i>
Total			<i>657.06</i>				<i>82616</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{169.10}{18} (.75 - .4295) = -3.01$
 If limited on account of midship superstructure.
 If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *37.66*
 Summer freeboard = *7.33*
 Moulded draught (d) = *30.33*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *7.58*

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ *27613*

Tons per inch immersion at summer load water line

 $T =$ *92.67*Deduction = $\frac{\Delta}{40T}$ inches $=$ *7.46*

DRAUGHT DISPL TONS PER 1"

*23'-0" 24850 90.875**29'-8" 26700 92.1**32'-0" 27075 92.35**32'-2" 28150 93*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... *13.29*
 Deduction for superstructures ... *34.18*
 Sheer correction ... *3.91*
 Round of Beam correction ... *4.51*
 Correction for Thickness of Deck amidships ... *1.14*
 Other corrections, scantlings, etc. ...

Summer Freeboard = *8*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood/Steel, Deck*

MAY 1932

Tropical Fresh Water Line above Centre of Disc ... *15*Fresh Water Line ... *7 1/2*Tropical Line ... *7 1/2*Winter Line ... *7 1/2*Winter North Atlantic Line ... *7 1/2*

Tropical Fresh Water Freeboard ...

Fresh Water ...

Tropical ...

Winter ...

Winter North Atlantic ...

RECEIVED

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS								
ON E.DK ON D.DK								
Description of Hatchway	N ^o 1	N ^o 2	N ^o 3	N ^o 4	N ^o 5	N ^o 6	N ^o 7	
Dimensions of Hatchway	13'-6" x 14'	15'-9" x 16'-0"	15'-0" x 18'-0"	11'-9" x 18'-6"	9'-6" x 18'-0"	9'-6" x 18'-0"	11'-8" x 16'-0"	
COAMINGS	Height above Deck	30"	30"	30"	30"	30"	30"	
	Thickness	44"	44"	44"	44"	44"	44"	
	Sides	44"	44"	44"	44"	44"	44"	
	Ends	44"	44"	44"	44"	44"	44"	
	Stiffeners	7x3x5	7x3x5	7x3x5	5 1/2 x 3 x 5 L	5 1/2 x 3 x 5 L	5 1/2 x 3 x 5 L	
	Brackets, Stays	none	none	none	none	none	none	
HATCH BEAMS	Number	2	2	2	1	1	1	
	Spacing	4'-6"	5'-3"	5'-0"	5'-10"	4'-9"	4'-9"	
	Scantling and Sketch	3x3x42 11 3/4 x 32	3x3x42 14 1/2 x 34	4x3x44 12 1/2 x 32	4x3x44 14 x 32	4x3x44 12 1/2 x 32	4x3x44 12 x 32	
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3"	3"	
FORE AND AFTERS	Number							
	Spacing							
	Unsupported Lengths							
	Scantling* and Sketch							
	Bearing Surface							
HATCH COVERS	Material	SOLID PINE	PINE GRATINGS	PINE GRATINGS	PINE GRATINGS	PINE GRATINGS	PINE GRATINGS	
	Thickness	3"	3"	3"	3"	3"	3"	
	How fitted	F&A	F&A	F&A	F&A	F&A	F&A	
	Bearing Surface	3"	3"	3"	3"	3"	3"	
Spacing of Cleats	24"	24"	24"	24"	24"	24"	24"	
Number of Tarpaulins	3	3	3	3	3	3	3	
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/>								

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel casing & ventilator strongly constructed & in good condition.
 Fiddle trunks covered by efficient steel hoods.
 Engine room skylights of steel, strongly constructed & in good condition.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

- 1 from E to F.Dk. housed under upper plate.
- 2 from E to F.Dk. housed in strongly constructed steel deck house on E deck forward of bridge.
- 1 from E to F.Dk. housed in upper bridge deck (saloon).
- 8 from F to G.Dk. housed in combined bridge & plate.
- 4 from F to G.Dk. housed in strongly constructed houses on F.Dk. abaft bridge.
- 1 from F to G.Dk. housed in poop.

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

Ventilator coamings are of substantial construction, 3ft in height except small vents on C. deck which are 18" high.
 Round ventilator coamings on weather decks forward of bridge are fitted with screwed plugs. Other coamings closed by wood plugs & canvas hoods.

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

Air pipes lead to ships side above freeboard deck.
 from tanks Nos. 3, 4, 5 centre; 6 centre; 8, centre. 9 & 10 are fitted with float ball non return valves.
 from tanks Nos. 1, 2, 5 sides; 6 sides; ER side tanks; 8 sides; 11, 12 and peak tanks have no close.
 Tank is used exclusively for oil & air pipes are carried above passenger decks.
 gratings at outboard ends.

Particulars of Gangway Cargo and Coaling Ports:—

Gangway doors Port & Starboard above F. deck at frame No 138. Opening 4'-1 x 6'-3"
 Gangway doors Port & Starboard above F. deck at frames Nos 90 & 131 openings 4'-1 x 6'-3"
 Gangway doors Port & Starboard above G. deck at frames Nos 98 & 122 Port & 101 & 122 Starboard. Opening 4'-1 x 6'-3"
 doors rubber jointed & fitted with efficient strongbacks & fastenings.

Particulars of Scuppers and Sanitary Discharge Pipes

Weather deck scuppers lead to brass bends at ship's sides
 All scuppers and sanitary discharges from enclosed spaces are fitted with bronze storm valves
 All scuppers and sanitary discharges from spaces below freeboard deck are fitted with bronze storm valves with positive closing arrangements operated from above freeboard deck

Particulars of Side Scuttles:

H. deck. Watertight type with deadlights and plugs.
 G. deck. Bronze framed lock up ports with deadlights through. plugs in quarters forward and in spaces alternately used for passengers & cargo
 F. deck. Bronze framed ports, with plugs and deadlights in quarters forward

Particulars of Guard Rails:—

Y. deck. 4 bars, 3'-9" high, 4'-6" stanchion spacing
 W. deck. 3 bars 4'-6" " 4'-6" "
 Other decks. Deck rails 3'-6" to 3'-10" high 4-5 bars, 4'-6" stanchion spacing.

Particulars of Gangways, Lifelines, etc. :—

Access to quarters below weather deck.

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	89 75 ft	4'-4"	24" X 18"	3	9.4 ft	17.8 15.4 ft See note on special features
Forward Well	68 ft	4'-0"	2 @ 3'-0" X 1'-6" 1 @ 2'-3" X 1'-6"	3	12.4 ft	7.8 ft
State position of each freeing port { After Well:— 25 ft. 53 ft & 86 ft from after end of bridge house 13" above deck (F. and A. position and height above deck edge) { Forward Well:— 6 ft 25 ft & 40 ft from bridge front 14" above deck State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Shutter & 2 bars Additional area where sheer is less than standard.						

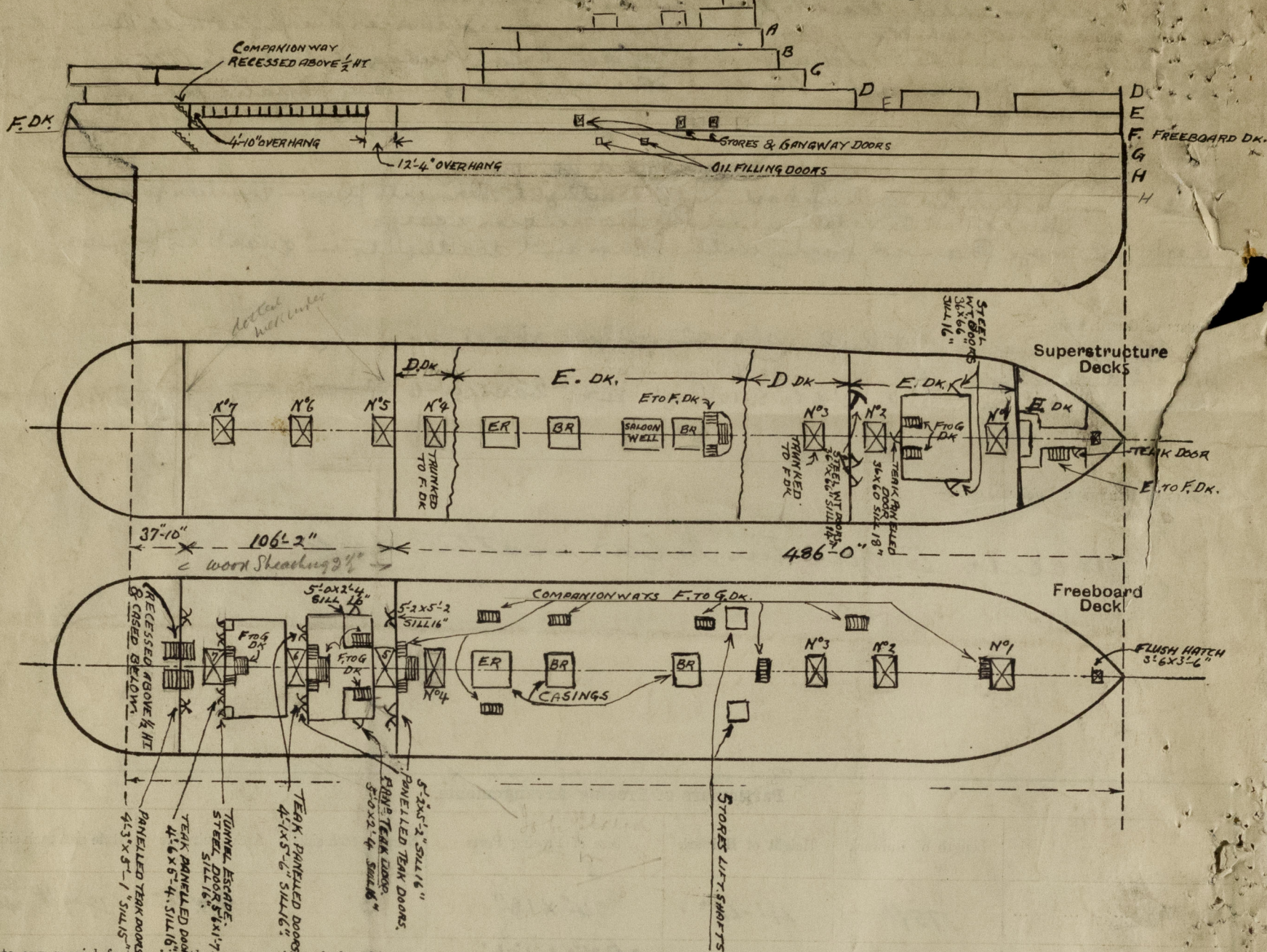
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.32	.32	5x3x.46	36"	free ends	4'-3" X 5'-1"	15"	8'-0" See special features
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.32	.32	3x3x.40	30"	free ends	2 @ 5'-2" X 5'-2" 10 @ 2'-6" X 2'-0"	16" 40"	8'-6" "
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.36	.28	3 1/2 x 3 x .30	36"	continuous 60 ft to skylight	26" X 69"	14"	8'-8" FDR
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	1 3/4 teak panelled doors
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	1 3/4 teak panelled doors, teak framed windows with storm shutters
Bridge, Forward Bulkhead	
Forecastle Bulkhead	{ combined bridge & 4th.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	none
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Teak panelled door.
Deckhouses on Flush Deck Ships ...	✓



Albion

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:—



State any special features in the construction of the ship:—

Sheer of freeboard deck not normal the deck being decked amidships to give 9'-6" tweendeck height in way of Saloon.

Freeboard deck abaft bridge is only partially exposed through 15 openings 5'-0" and is further protected by E deck above being a continuous full breadth deck

Builder's name and yard number

Names of sister ships

Owners *Orvine Steam Nav Co*

Fee £ *17* : 0 : 0

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