

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD. No 12702.

Index. No. 30163 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker Raised Quarter Deck, Bridge, & Forecastle

Port of Survey Bristol Date of Survey 31st May 1932 Name of Surveyor J. Anderson Particulars of Classification +100 A.1.

LOTHDALE (Type of Superstructures.) Ship's Name ("BROCKLEY COMBE") Nationality and Port of Registry British Bristol Official Number 145870 Gross Tonnage 345 Date of Build 1921-9.

Moulded Dimensions: Length 134.58 Breadth 23.00 Depth 10.3 10.25 Moulded displacement at moulded draught = 85 per cent. of moulded depth 559 tons Coefficient of fineness for use with Tables .725

Depth for Freeboard (D) 10.25	Depth correction	Round of Beam correction
Moulded depth 10.3	(a) Where D is greater than Table depth (D-Table depth) R = 10.29 - 8.97 = 1.32	Moulded Breadth (B) 23.00
Stringer plate .44	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 1.32	Standard Round of Beam = B x 12 / 50 = 5.52
Sheathing on exposed deck T (L-S) / L =	If restricted by superstructures	Ship's Round of Beam = 6
Depth for Freeboard (D) = 10.29		Difference = 5.52 - 6 = -.48
		Restricted to
		Correction = Diff / 4 x (1 - S1 / L) = .48 / 4 x (1 - .5766) = -.05

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S1)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure 3.35 6.0
overhang						R.Q.D. 3.236
R.Q.D. enclosed	49.47	49.47	3.50		49.47	Deduction for complete superstructure 19.46
overhang						Percentage covered S / L = 58.36%
Bridge enclosed	8.75	8.75	7.00		8.75	S1 / L = 57.66%
overhang aft						E / L = 57.66%
overhang forward	18.42	18.42	6.50		18.42	Percentage from Table, Line A. 42.72
Fore enclosed	20.35	20.35			20.35	(corrected for absence of forecastle (if required))
overhang	1.93	1.93			1.93	Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction = .4272 x 19.46 = 8.31
forward						
Total	78.57	77.60			77.60	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	23.46	1		23.46	26.50	26.50	1		26.50	Mean actual sheer aft =
1/4 L from A.P.	10.44	4		41.76	15.80	15.80	4		63.20	Mean standard sheer aft =
1/2 L	2.58	2		5.16	3.94	3.94	2		7.98	Mean actual sheer forward =
Amidships		4			.00		4			Mean standard sheer forward =
3/4 L from F.P.	5.16	2		10.32	5.81	5.81	2		11.62	Length of enclosed superstructure forward of amidships =
1/4 L	20.88	4		83.52	23.30	23.30	4		93.20	aft of =
F.P.	46.92	1		46.92	51.50	51.50	1		51.50	
Total				211.14					254.00	

Correction = Difference between sums of products / 18 (.75 - S / 2L) = 42.86 / 18 (.75 - .2919) = -1.09 If limited on account of midship superstructure. .033 / .200 x 1.09 = -.18 If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = 10.29	Delta = 6.45	1.36
Summer freeboard = .56	Tons per inch immersion at summer load water line	1.36
Moulded draught (d) = 9.73	T = 6.2	
Deduction for Tropical freeboard and addition for Winter freeboard = d / 4 inches = 2.43 + 2 1/2"	Deduction = Delta / 40 T inches = 2.6	Depth Correction ... 1.37
Addition for Winter North Atlantic Freeboard (if required) = 2 + 2 1/2 = 4 1/2"	2 1/2"	Deduction for superstructures ... 8.31
		Sheer correction ... .18
		Round of Beam correction ... .05
		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		1.37 8.54 7.0
		Summer Freeboard = 6

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

Tropical Fresh Water Line above Centre of Disc	5	Tropical Fresh Water Freeboard	
Fresh Water Line	2 1/2	Fresh Water	
Tropical Line	2 1/2	Tropical	
Winter Line below	2 1/2	Winter	
Winter North Atlantic Line	4 1/2	Winter North Atlantic	

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway			... ..	MAIN HATCH		ESCAPE HATCH TO HOLD	HATCH TO AFT STORE	COAL HATCH	
Dimensions of Hatchway			... ..	47'3" x 15'6"		2'3" x 1'10"	3'0" x 2'6"	13'6" x 6'9"	
COAMINGS	{	Height above Deck	... ..	4'5" ✓		15" ✓	12" ✓	6" ✓	
		Thickness	Sides	... ..	5/8" ✓	3/2" ✓	26" ✓		
			Ends	... ..	5/8" ✓	3/2" ✓	26" ✓	6" x 3" x	
		Stiffeners	... ..	6 1/2" x 3" x 40L ✓		none	none	40" B.A. ✓	
		Brackets, Stays	... ..	5' 11" x 50" B.P. ✓		none	none		
HATCH BEAMS	{	Number	... ..	8 ✓					
		Spacing	... ..	5'0" ✓					
		Scantling and Sketch		3 1/2" x 3" x 34" ✓		None	None	None	
				16" x 10" x 35" ✓					
				DOUBLE 3" x 1 1/2" SOLID ✓					
		Bearing Surface	... ..	3 1/2" ✓					
FORE AND AFTERS	{	Number	... ..					
		Spacing	... ..					
		Unsupported Lengths	... ..					
		Scantling* and Sketch	... ..	None	None	None			
		Bearing Surface	... ..					
HATCH COVERS	{	Material	... ..	W.P.		W.P.	W.P.	W.P.	
		Thickness	... ..	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓		
		How fitted	... ..	F. & A. ✓	✓	✓	F. & A. ✓		
		Bearing Surface	... ..	3/4" ✓	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓		
Spacing of Cleats			... ..	24" ✓	24" ✓	24" ✓	24" ✓		
Number of Tarpaulins			... ..	3 ✓	2 ✓	2 ✓	2 ✓		
*Are wood fore and afters steel shod at all bearing surfaces? None									
Are battens and wedges efficient and in good condition? Yes									
Are tarpaulins in good condition and in accordance with rule requirements? Yes									
Are lashings provided in accordance with rule requirements? Yes.									

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers.
 Ladders and funnel ventilators in efficient condition.
 Engine skylight of steel, strongly constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways :—

Entrance to offices quarters in enclosed bridge space from wheelhouse on bridge deck.
Wheelhouse has wood sides and front with steel end and is efficiently constructed.
Hinged wood doors 5'-6" x 11'-9" with 12" sill. Top panel of glass. Wood hatch 12'-3" x 2'-0" x 3'-6" high
with hinged front and top with 10" boarding inside wheelhouse.

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

[illegible]

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

2 W. 1. Air pipe on fore-castle deck 21" high \times 2½" dia. from fore peak. with snifting hole. ✓
 2 " " " " Raised Qtr " 30" \times 2" " " aft peak. no " " " " ✓
 Air pipes closed with wood plugs and/or canvas covers. ✓

ars of Gangway Cargo and Coaling Ports :—

None.

Particulars of Scuppers and Sanitary Discharge Pipes —

one sanitary discharge below freeboard level in engine room fitted with non return valve on ship's side.

Parts of Side Scuttles :

side scuttles below freeboard deck.
side scuttles to crew spaces in forecabin fitted with hinged deadlights.
" " " " " bridge not " " "
all scuttles of substantial construction.

Particulars of Guard Rails :—

Guard rails on forecastle decks 3'-0" high with two rods and stanchions spaced 4'-3" apart.
Steel bulwarks on freeboard decks in wells and Raised quarter deck efficiently constructed and supported.
Wood bulwark on bridge decks 3'-0" high, efficiently constructed and supported.

Particulars of Gangways, Lifelines, etc. :—

Lifeline on starboard side of fore well from bridge front bulkhead to fore-castle bulkhead of 2" steel wire, led through portable stanchions in permanent sockets on hatch coaming. Wire set up with lanyard. Stanchions 4'6" high (3'8" above hatch coaming). Wood ramp 24" wide from hatch coaming to fore-castle bulkhead.

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	49'6"	2'9"	2 @ 2'-3" x 1'-4" 2 @ 2'-0" x 1'-4"	4	11.33 sq. ft.	11.45
Forward Well	59'6"	3'-0"	2'-7" x 1'-6"	3	11.61 sq. ft.	12.45

State position of each freeing port ... } After Well :— FROM BRIDGE AFT BND. TO FORE END — F.P. L'S, 13'-L, 20'-9", & 28'-5". ABOVE DECK EDGE " "
(P. and A. position and height above deck edge) { Forward Well :—" " FORD " " AFT " " " 1'-6", 22'-0", & 41'-0". " " " 9"

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—

BALANCED PLATE DOORS. ✓

Additional area where sheer is less than standard.

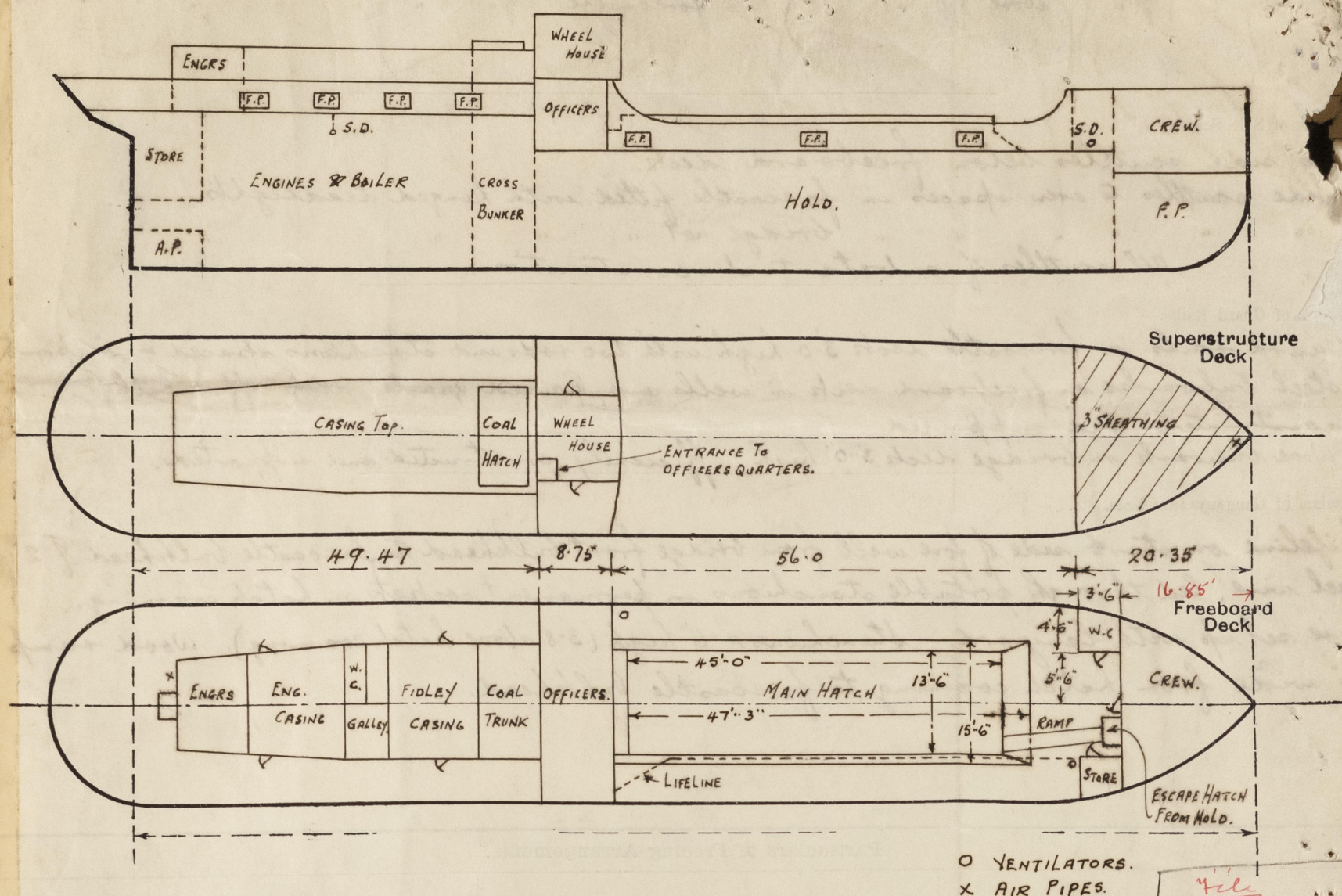
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead	✓	.26	3½" x 2½" x .30	30"	Brlts	none	none	4'..0"
Bridge, Forward Bulkhead ... ..	.30"	.26"	6" x 3½" x .40" [	30"	Brlts	none	none	4'..0"
Forecastle Bulkhead ... ..	.30"	.26"	3½" x 2½" x .30"	27"	none	3'..9" x 1'..9"	1'..9"	6'..6"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Deck board or Raised Quarter Decks ...	.36"	.26"	3½" x 2½" x .30"	33"	Brlts top	3'..9" x 1'..9"	1'..9"	6'..6"
Exposed Machinery Casings on Super- structure Decks	✓							
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓							
Deckhouses on Flush Deck Ships ...	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Closing Appliances	
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	No openings. ✓
Bridge, Forward Bulkhead	No openings. ✓
Forecastle Bulkhead	Hinged steel doors operated from both sides. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Hinged steel doors operated from both sides. ✓
Exposed Machinery Casings on Superstructure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships ...	✓

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



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

$\alpha = 589$
 $\beta = 580 (9.0) \dots 657 (10.0)$
 $\gamma = 6.12 \dots 6.2$

This survey has been held afloat and is therefore confined to an examination of the means for closing the openings in the decks and sides of the vessel.

J. Anderson

Builder's name and yard number Cook, Welton & Gemmell, Ltd. Yard No. HH1

Names of sister ships

Owners

Old Shipping Co. *Quint*

Fee £ 5 : 2 : 0

Received by me



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