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Rpt. C.11.

Index. No. **28165**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No. **100353**

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey Birkenhead
having Foucauld and Raised Quarter Deck, and Bridge House					Date of Survey 29 April 1932
(Type of Superstructures.)					Name of Surveyor E.H. Dinn
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification F/100 A.1.
"CLARA MONKS"	British Liverpool	143703	577	1920	
Moulded Dimensions: Length 170'0" Breadth 26'0" Depth 13'0"					
Moulded displacement at moulded draught = 85 per cent. of moulded depth 987 tons					
Coefficient of fineness for use with Tables .707					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... 13'0"	(a) Where D is greater than Table depth (D - Table depth) R = $(13.03 - 11.33) / 1307$ = + 2.22"	Moulded Breadth (B) 26'0"
Stringer plate03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{6.24}{50} = \mathbf{6'12"}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 6'12"
Depth for Freeboard (D) = 13.03		Difference 26"
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{26}{4} \times \frac{2320}{1700} = \mathbf{- .02"}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	-	-	-	-	-
„ overhang ...	-	-	-	-	-
R.Q.D. enclosed ...	93.66'	93.66	3'7"	-	93.66
„ overhang ...	-	-	-	-	-
Bridge enclosed ...	11.50'	11.75	6'9"	-	11.75
„ overhang aft ...	-	-	-	-	-
„ overhang forward ...	28.00	-	-	-	-
F'cle enclosed ...	28.6"	25.91	8'9"	-	25.01
„ overhang ...	2.6"	-	6'9"	-	-
Trunk aft ...	-	-	-	-	-
„ forward ...	-	-	-	-	-
Tonnage opening aft ...	-	-	-	-	-
„ forward ...	-	-	-	-	-
Total ...	133.41	130.42	-	-	130.42

Standard Height of Superstructure 6.00	
„ „ R.Q.D. 3.467	
Deduction for complete superstructure 23.00	
Percentage covered $\frac{S}{L} = 78.49\%$	
„ „ $\frac{S_1}{L} = 76.73\%$	
„ „ $\frac{E}{L} = 76.73\%$	
Percentage from Table, Line A. 71.28%	
(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 = 23.00 x 71.28 = - 16.39	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	27.00	1	27.00	27.00	26.00	27.00	1	27.00	27.00
1/4 L from A.P. ...	12.01	4	48.04	9.00	11.85	12.01	4	48.04	48.04
3/4 L „ ...	2.97	2	5.94	2.00	2.96	2.97	2	5.94	5.94
Amidships ...	✓	4	✓	✓	✓	✓	4	✓	✓
3/4 L from F.P. ...	5.94	2	11.88	5.00	5.92	5.92	2	11.84	11.84
1/4 L „ ...	24.02	4	96.08	22.00	23.70	23.70	4	94.80	94.80
F.P. ...	54.00	1	54.00	53.00	54.00	54.00	1	54.00	54.00
Total ...	243.00	✓	242.94	✓	✓	✓	✓	241.62	✓

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{1.32}{18} \left(\frac{.75 - .3924}{.3576} \right) = \mathbf{+ .03"}$

If limited on account of midship superstructure, **✓**

Mean actual sheer aft = **Excess** **= 1.392"**

Mean standard sheer aft = **Excess**

Mean actual sheer forward = **Deficient**

Mean standard sheer forward = **Deficient**

Length of enclosed superstructure forward of amidships = **.12L**

„ „ aft of „ = **.5L**

Actual	3	17.76
Standard	3	71.10
Actual	1	54.00
Standard	1	54.00
Total		142.86

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 $\frac{.707 + .68}{1.36} = \frac{1.387}{1.36}$
Depth to Freeboard Deck = 16.61'	$\Delta = \mathbf{1155}$	
Summer freeboard = 3.96'	Tons per inch immersion at summer load water line	
Moulded draught (d) = 12.65'	T = 8.53	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.16' = 3 1/4'	Deduction = $\frac{\Delta}{40T}$ inches = 3.39' = 3 3/8'	
Addition for Winter North Atlantic Freeboard (if required) = 2"		

Depth Correction ...	2.22	-
Deduction for superstructures ...	-	16.39
Sheer correction03	-
Round of Beam correction ...	-	.02
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	43.00	-
	45.25	16.41
		+ 28.84
		Summer Freeboard = 47.51

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

Tropical Fresh Water Line above Centre of Disc ...	6"	Tropical Fresh Water Freeboard ...	3' 11 1/2"
Fresh Water Line „ „ ...	3 1/2"	Fresh Water „ „ ...	3' 5 1/2"
Tropical Line „ „ ...	2 1/2"	Tropical „ „ ...	3' 8"
Winter Line below „ „ ...	3 1/4"	Winter „ „ ...	4' 2 3/4"
Winter North Atlantic Line „ „ ...	5 1/2"	Winter North Atlantic „ „ ...	4' 4 3/4"

13 MAY 1932

MARKING FORM
15 FEB 1936
RECEIVED

MARKING FORM
20 JAN 1934
RECEIVED

MARKING FORM
10 JUL 1933
RECEIVED

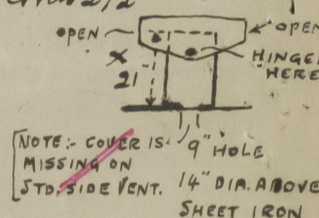
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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway			Nº1 WELL DE	Nº2 R.Q. DE					
Dimensions of Hatchway			23'-3 1/2" x 14'-0"	23'-3 1/2" x 14'-0"					
COAMINGS	Height above Deck	...	3'-6"	2'-6"					
	Thickness	Sides	44"	44"					
		Ends	44"	44"					
	Stiffeners	...	7 x 3" B.A.	7 x 3" B.A.					
	Brackets, Stays	...	NONE	NONE					
HATCH BEAMS	Number	...	4	4					
	Spacing	...	4'-8"	4'-8"					
	Scantling and Sketch	...	12 1/2" x 34"	12 1/2" x 34"					
		...	ANGLES 3 x 3 x 42"	ANGLES 3 x 3 x 42"					
	Bearing Surface	...	3"	3"					
FORE AND AFTERS	Number	...							
	Spacing	...							
	Unsupported Lengths	...							
	Scantling* and Sketch	...							
	Bearing Surface	...							
HATCH COVERS	Material	...	W.P.	W.P.					
	Thickness	...	2 1/2"	2 1/2"					
	How fitted	...	F.A.	F.A.					
	Bearing Surface	...	3"	3"					
Spacing of Cleats			24"	24"					
Number of Tarpaulins			2	2					

*Are wood fore and afters steel shod at all bearing surfaces? *Yes.*
 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 fiddle, funnel and ventilator coamings:— The fiddle gratings are covered by steel hinged covers in halves. *see note*
 aft one hinged, forward one secured by chain. Ventilators and funnel are in good condition. Engine Room
 skylight is of wood and is in good condition.
 Bunker hatch 14'-4" x 5'-6". 17" coaming x .35", cleats, battens & tarpaulins are efficient. Wood cover 2 1/2"
 There are 2- Vents to Boiler Room as sketch. x



Particulars of Flush Bunker Scuttles:—

NONE.

Particulars of Companionways:—

1- ON BRIDGE DECK FROM BRIDGE DECK TO ACCOMMODATION WELL DE. WOOD HINGED DOOR.
 5'-0" x 2'-0". 10" SILL. MANIPULATED FROM BOTH SIDES. ✓

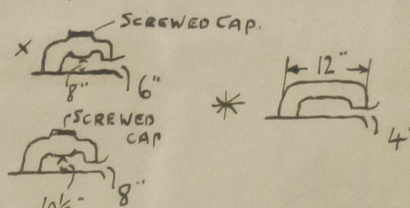
Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

1- VENT ON FORE HEAD. TO CREW SPACE 36" HIGH x 30". 6" DIA.	1- VENT ON R.Q. DE TO HOLD, 36" HIGH x 36". 10" DIA.
2- VENTS " " " " " 35" " x 30". 7" DIA.	2- SNVS. " " " " " BILGES. 8" HIGH. 3" DIA.
1- M.V. " " " " " 18" " " 6" DIA.	
2- VENTS " FREEBOARD DECK TO HOLD 43" " x 36" 10" DIA.	
3- " " BRIDGE " " ACCOMMODATION 24" " x 30" 6" DIA.	
1- M.V. " " " " " 18" " " 6" DIA.	
1- VENT. " R.Q. DE TO HOLD 36" " x 40" 15" DIA.	

Efficient closing appliances provided

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

1- C.I. AIR PIPE ON FORE HEAD. TO FORE PEAK. 6" HIGH. 3 1/2" DIA. x
 1- " " " " " DEEP TANK 4" HIGH. 3" DIA. *
 1- " " " " " R.Q. DE " A.P. TANK 8" " 3" DIA. x



Efficient closing appliances provided

Particulars of Gangway Cargo and Coaling Ports:—

NONE ✓



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Particulars of Scuppers and Sanitary Discharge Pipes:—

ALL SANITARY DISCHARGE PIPES ARE FITTED WITH CLACK VALVES AT SHIPS SIDE.

Particulars of Side Scuttles:—

SIDE SCUTTLES TO CREW SPACE IN FORECASTLE ARE OF SUBSTANTIAL CONSTRUCTION AND ARE FITTED WITH C.I. DEADLIGHTS.

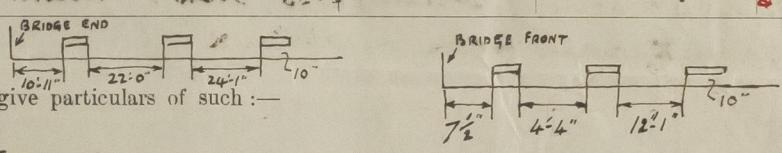
Particulars of Guard Rails:—

ROUND FORECASTLE HEAD 3'-0" HIGH. 4'-2" APART. 2 RAILS.

Particulars of Gangways, Lifelines, etc.:—

WOOD GANGWAY FROM BRIDGE LADDER & FORECASTLE LADDER TO HATCH TOP IN FORE WELL
PORTABLE STANCHIONS FITTED IN PERMANENT SOCKETS ON HATCH SIDE STIFFENER WITH EFFICIENT ROPE LIFE LINE. FITTED ON STARBOARD SIDE ONLY.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
BRIDGE R.Q.DK After Well	93.66 100'-0"	3'-3"	2'-0" x 1'-3"	3	18 3/4 7.86	18 3/4 20 ✓
Forward Well	PORT 39'-0" STARO. 39'-4"	4'-3"	2'-9" x 1'-9"	3	9.62 ✓	10.25 ✓ 10.45 ✓
State position of each freeing port } After Well:— (F. and A. position and height above deck edge) } Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Additional area where sheer is less than standard.						
						
			FREEING PORTS ARE FITTED WITH HINGED FLAPS.			

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 ...	NONE	25"	5 1/2" x 3" x 36" A.A. 3" x 2 1/2" x 30" O.A.	30"	BRACKETED TOP & BOTTOM	NONE	NONE	3'-7"
Bridge, After Bulkhead	NONE	25"	3" x 2 1/2" x 30" O.A.	30"	BRACKETED TOP & BOTTOM	NONE	NONE	6'-9"
Bridge, Forward Bulkhead	30"	26"	5 1/2" x 3" x 36" A.A.	30"	BRACKETED TOP & BOTTOM	NONE	NONE	6'-9"
Forecastle Bulkhead	30"	25"	3" FLANGES.	40"	NONE	STEEL & WOOD DOORS 5'-0" x 2'-0"	18"	6'-9"
Trunk, Aft	-	-	-	-	-	-	-	-
Trunk, Forward	-	-	-	-	-	-	-	-
Exposed Machinery Casings on Free board or Raised Quarter Decks ...	38"	25"	2 1/2" x 2 1/2" x 25"	30"	BRACKETED TOP	STEEL DOORS 5'-0" x 2'-0"	15"	6'-9"
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).

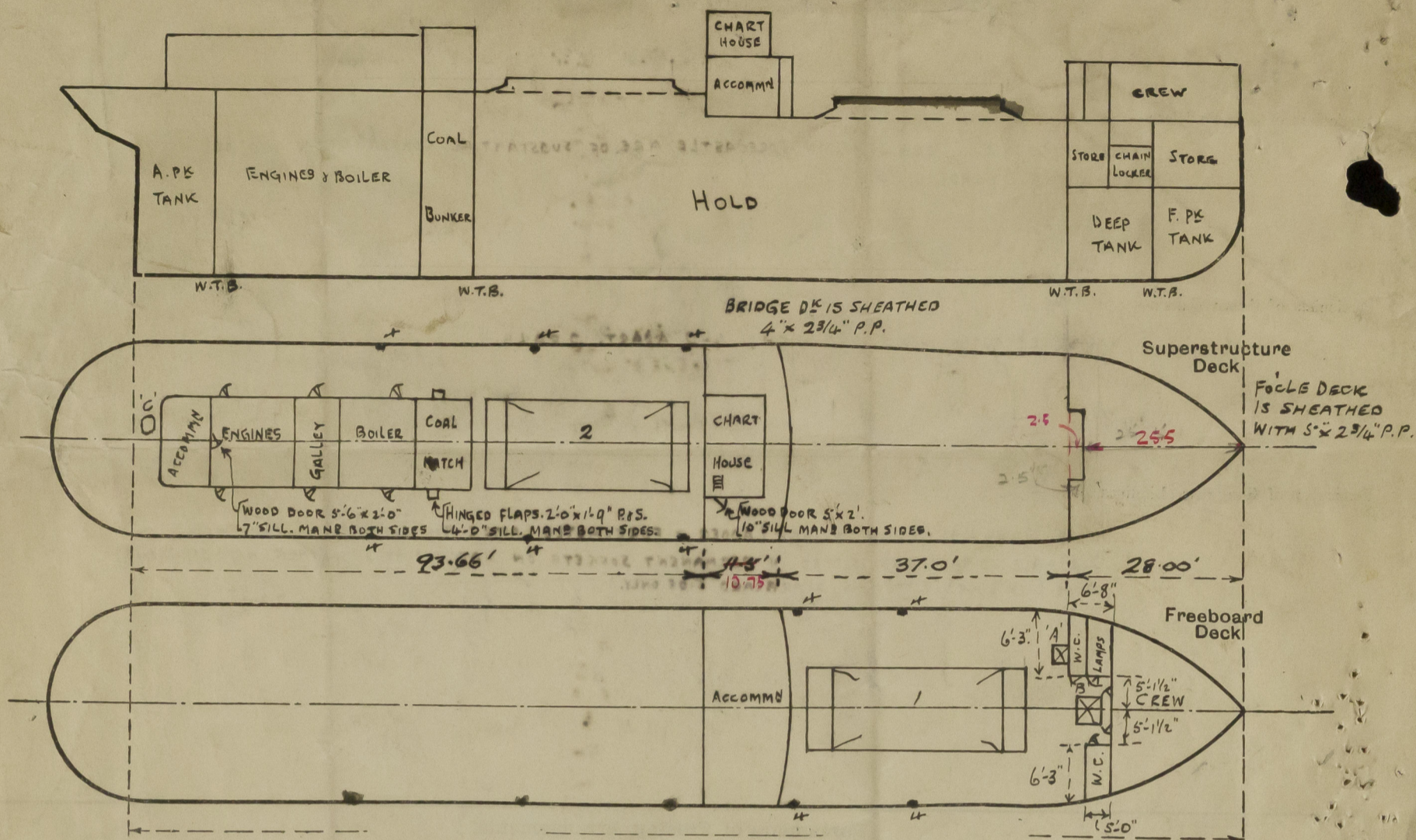
Poop Bulkhead	-
Raised Quarter Deck Bulkhead ...	NONE.
Bridge, After Bulkhead	NONE.
Bridge, Forward Bulkhead	NONE.
Forecastle Bulkhead	STEEL & WOOD HINGED DOORS MANIPULATED BOTH SIDES
Exposed Machinery Casings on Free board or Raised Quarter Decks ...	STEEL HINGED DOORS MANIPULATED ON PORTSIDE BOTH SIDES ON STARBOARD SIDES ONE SIDE.
Exposed Machinery Casings on Super- structure Decks	-
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	-
Deckhouses on Flush Deck Ships ...	-



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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:—



PARTICULARS OF HATCHES NOT GIVEN OVERLEAF:—

'A' - ESCAPE FROM HOLD 2'-6\" x 1'-10\" 24\" COAMING x .35\" CLEATS, BATTENS & TARPULINS FITTED. 2 1/2\" W.P. COVER. ✓

'B' - TO STORE. 4'-0\" x 3'-0\" 24\" COAMING x .35\" CLEATS, BATTENS & TARPULINS FITTED. 2 1/2\" W.P. COVER. ✓

'C' - TO AFT PEAK TANK W.T. MANHOLE 23\" x 15\" ✓

4\" DECK SCUPPERS 5\" x 4\".

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

Vessel placed in drydock for condition survey and freeboard measurement. ✓

Freeboard 21.33
 Surface 6.25 x 5 1.37
 22.75
 6.67 x 6.25 1.83
 22.75 24.53 eqm.
 17.00
 7.53
 23.50
 24.53
 97.

85% rounded = 11'-0 1/2\"
 Keel 11'-7\"
 Equi 24.53
 1.48
 26.01
 54 D = 992

Builder's name and yard number Ailsa S. B. Co. Ltd. No 375.

Names of sister ships

Owners J. H. Monks (Preston) Ltd.

Fee £ 6 : 16 : 0

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