

6 AUG 1932

Index. No. 29653
(For London Office only.)

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Leaving

Combined Bridge and Forecastle

Port of Survey

Glasgow

Date of Survey

1st 2nd August 1932

Name of Surveyor

James R Clark

Ship's Name

CAMERONIA

Nationality and Port of Official Number

British
Glasgow

144242

Gross Tonnage

16297

Date of Build

1920

9 mo.

Moulded Dimensions: Length

550

Breadth

70

Depth

42' 9"

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

30350

tons

Coefficient of fineness for use with Tables

759

Particulars of Classification

100 A1

Shelter Rk. with freeboard.

S.S. No 2-28.

Added for oil fuel 321.

F.P. above 150°F

Depth for Freeboard (D)

Moulded depth ... 42.75

Stringer plate ... 04

Sheathing on exposed deck 2 1/2"

$$T \left(\frac{L-S}{L} \right) = 21 \times 1736 = 04$$

Depth for Freeboard (D) =

42.83

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R =

$$(42.83 - 36.67) 3 = 18.48$$

(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)

70

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 16.8$$

$$\text{Ship's Round of Beam} = 4"$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{12.8}{4} \times 1736 = +.56$$

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 ...					
" overhang ...					
Bridge enclosed ...	454.5	454.5	8.5	-	454.5
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	454.5	454.5			454.5

Standard Height of Superstructure

7.5

R.Q.D.

Deduction for complete superstructure

42.0

Percentage covered $\frac{S}{L} =$

82.64

Percentage covered $\frac{S_1}{L} =$

82.64

Percentage covered $\frac{E}{L} =$

82.64

Percentage from Table, Line A.

(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 =

- 33.00

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	65.00	1	1	65.00	60"	60.0	1	1	60.00
1/4 L from A.P. ...	28.93	4	4	115.72	26.5	26.86	4	4	107.44
2/4 L " ...	7.15	2	2	14.30	6.5	6.71	2	2	13.42
Amidships ...		4	4	0	0	0	4	4	0
3/4 L from F.P. ...	14.30	2	2	28.60	13	13.82	2	2	27.64
1/4 L " ...	57.86	4	4	231.44	54	55.3	4	4	221.20
F.P. ...	130.00	1	1	130.00	132"	132.0	1	1	132.00
Total ...				585.06					561.70

Correction = Difference between sums of products

If limited on account of midship superstructure.

$$\left(\frac{75-S}{21} \right) = \frac{23.36}{18} \left(\frac{75-4132}{21} \right) = +.44$$

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =

42.96

Summer freeboard =

12.29

Moulded draught (d) =

30.67

Deduction for Tropical freeboard and addition for

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

7.98

Addition for Winter North Atlantic Freeboard (if required) =

8"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

24984

Tons per inch immersion at summer load water line

T =

78.4

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

=

7.98

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

7597.68

1.36

+ 1.36

Depth Correction ...

18.48

Deduction for superstructures ...

- 33.00

Sheer correction ...

.44

Round of Beam correction ...

.56

Correction for Thickness of Deck amidships ...

1.52

Other corrections, scantlings, etc.

36.35

57.35

Summer Freeboard =

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

Tropical Fresh Water Line above Centre of Disc ...

8"

Fresh Water Line ...

8"

Tropical Line ...

NIL

Winter Line ...

NIL

Winter North Atlantic Line ...

NIL

Tropical Fresh Water Freeboard ...

11' 7"

Fresh Water ...

11' 7"

Tropical ...

11' 7"

Winter ...

11' 7"

Winter North Atlantic ...

11' 7"

6 AUG 1932

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway	No 1 & 2 B ON D ^K	No 2 C ON D ^K	No 3 B ON D ^K	No 5 B ON D ^K	No 6 A ON D ^K	No 7 B ON D ^K			
Dimensions of Hatchway	18' x 14'	18' x 14'	11' 11" x 14'	12' 6" x 14'	12' 6" x 14'	10' x 14'			
COAMINGS	Height above Deck	30"	18"	30"	18"	18"			
	Thickness	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"			
	Sides	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"			
	Stiffeners	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"			
HATCH BEAMS	Brackets, Stays	7" BA	✓	7" BA	✓	4 1/2"			
	Number	3	3	2	2	1			
	Spacing	4.5	4.5	3.98	4.16	5			
	Scantling and Sketch	12 x 30	11 x 30	12 x 30	12 x 30	12 x 30			
FORE AND AFTERS	Bearing Surface	4 @ 3 x 2 x 42	4 @ 3 x 3 x 38	4 @ 3 x 3 x 40	4 @ 3 x 3 x 42	4 @ 3 x 3 x 40			
	Number	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"			
	Spacing								
	Unsupported Lengths								
HATCH COVERS	Scantling* and Sketch								
	Bearing Surface								
	Material	W.P.	W.P.	W.P.	W.P.	W.P.			
	Thickness	2 3/4"	2 3/4" GRATING	2 3/4"	2 3/4" GRATING	2 3/4" GRATING			
Spacing of Cleats	How fitted	F & A	F & A	F & A	F & A	F & A			
	Bearing Surface	3"	3"	3"	3"	3"			
	Number of Tarpaulins	24"	24"	24"	24"	24"			
		3	2	3	3	2			

*Are wood fore and afters steel shod at all bearing surfaces?

Are battens and wedges efficient and in good condition?

Are tarpaulins in good condition and in accordance with rule requirements?

Are lashings provided in accordance with rule requirements? *Yes*
used to take shackle for lashings when required. NO OTHER PROVISION MADE.

Particulars of fiddle, funnel and ventilator coamings:— *Stokehold gratings covered by steel casing on Boat Deck having hinged steel doors.*
Fidley, funnel and Ventilators in efficient condition.
Engine Room skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

NONE

ASH SHOOT (P. 151) From above C Deck, discharging under D deck, and Refuel shoot (P) from above D deck, discharging under same. Anter ends closed by hinged steel flaps and inner ends by hinged W.T. flaps, secured by butterfly nuts. Efficiently constructed.
1 steel companion of B deck for D, 6' x 3' 6" high, leading to crew, steel W.T. door, operated both sides, 9" all.

Particulars of Companionways:—

For details of entrance houses on B & C decks, also particulars of open stairway on C deck inside Bridge, and on Bridge (B) deck inside deckhouse, see separate sketch enclosed.

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

Deck for 2 mushroom 8" dia, 12" to lip, to crew space.
" " 2 " 8" " 30" " " " "
" " 1 " 10" " 24" " " " "
" " 3 Ventilators, 12" " Coaming 34" x 32 to L.W. side.
" aft 1 " 9" " " 32 x 30 " " "

Wood plugs and canvas covers supplied for closing openings.

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

Deck for 1 airpipe 3" dia, 28" to lip to F.P. tank
" aft 2 " 4" " 28" " " to F.W. Tanks
" 2 " 4" " 26" " " D.B. "
" 2 " 2 1/2" " 24" " " A.P. "

all the airpipes from the D.B. tanks, except those mentioned above, are carried thro. ship's side about 36" above C deck, and have grating on outer end.

was covers supplied, or being supplied for above airpipes

Particulars of Gangway Cargo and Coaling Ports:—

One watertight door (P. 151) between B & C decks, to stokehold entrance, 6' x 5' ✓
" " (P. 151) " " " " to tween decks. 8' x 6' ✓

all doors efficiently constructed.

Hinged coaling doors (P. 151) between D & E decks, to coal trunks, 3' 6" x 3' 0" ✓
efficiently bolted by bolts spaced 4" apart. These doors not now in use.

Particulars of Scuppers and Sanitary Discharge Pipes:— all sanitary and other discharges, scuppers & from spaces below main deck, and from bridge space, which discharges thro. ship's side were stated to have storm valves fitted at their outlet ends. In some instances, on account of saloon panelling &c, it was not possible to verify this, but a sufficient number were seen to justify acceptance of this statement.

Particulars of Side Scuttles:— all side scuttles below 1st (2nd) deck, fitted with hinged deadlights, except those in dining saloons between C and D decks, where 16" dia. lights have outside plugs supplied. Lowest lights 33" to C. below D deck, 10" light. Sidelights in bow space between B & C decks, fitted with hinged deadlights. All sidelights of substantial construction.

Particulars of Guard Rails:— ON F.B.D. (C) Dth (aft) 30' bulwark, efficiently constructed, remainder open rails; 3' 9" high, 5 rods and leak rail, stanchions spaced 4' 0".
B' deck aft. rails 3' 9" high, 5 rods and leak rail, stanchions spaced 4' 0".
B' " fwd. " 3' 9" " 6 " , stanchions spaced 4' 6".

Particulars of Gangways, Lifelines, etc.:—

NONE.

Note; crew berthed fwd., but provision made for them to get aft along alleyway on port side, between B and C decks, in bad weather.

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 ...	95' 6"	3' 9"	65' 6" open rails			
Forward Well ...						
State position of each freeing port ... (F. and A. position and height above deck edge) } After Well:— 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.						

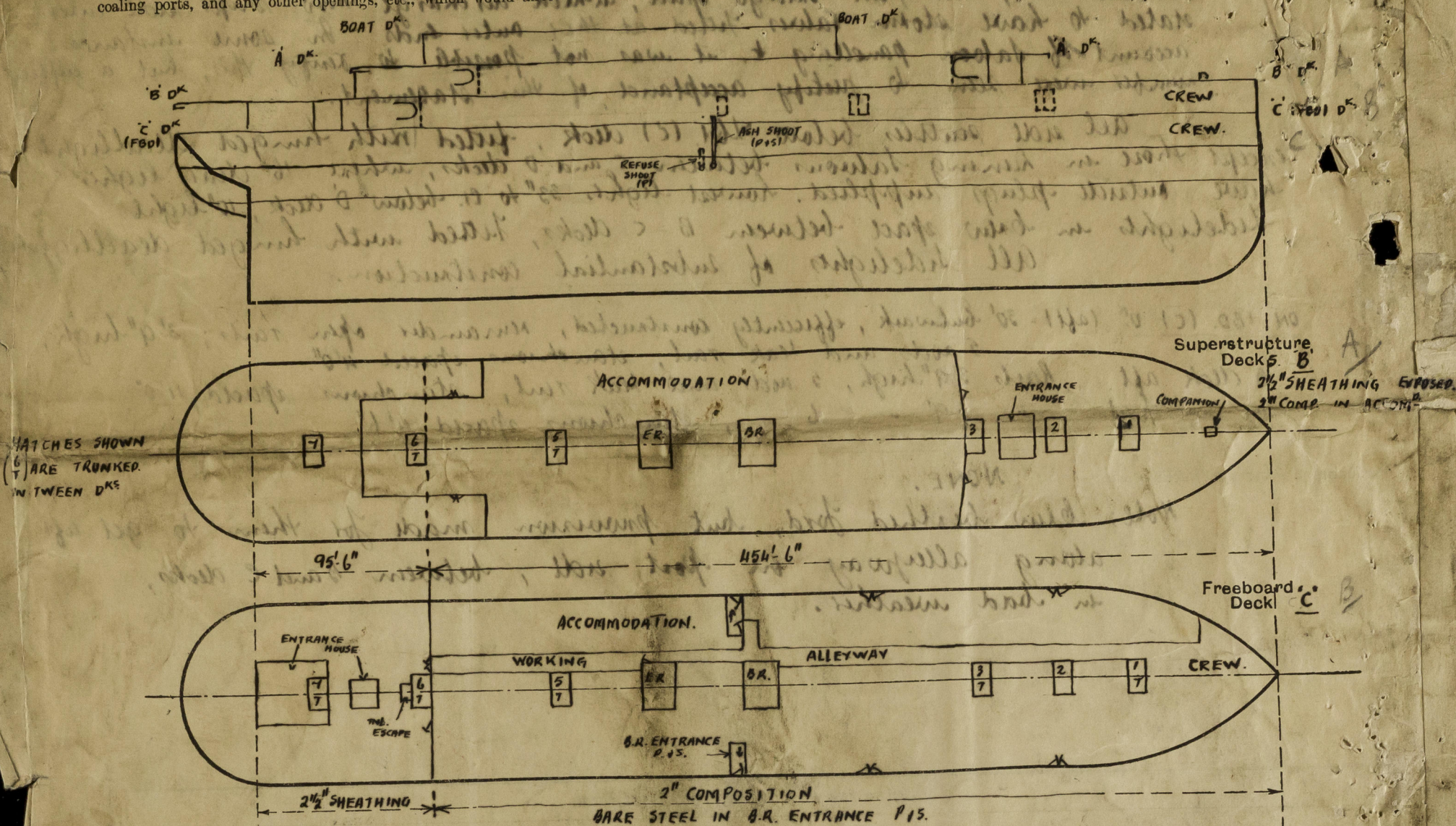
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	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 ...						PORT- 6' 0" WIDE STAR- 4' 9" x 2' 6"	7" 1"	8' 6"
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...	✓							
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super-structure Decks ...	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	NOT AVAILABLE		CASING INSULATED		ER. 5' 3" x 3' BR. 6' x 3'		12" 6"	8' 6"
Deckhouses on Flush Deck Ships ...	✓							

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

Poop Bulkhead ...	✓	
Raised Quarter Deck Bulkhead ...	✓	
Bridge, After Bulkhead ...	Port: 1" panelled double door, with 3" wood strongback at central (Kendall) door of both sides. STAR: hinged steel w.t. door operated both sides.	
Bridge, Forward Bulkhead ...	✓	
Forecastle Bulkhead ...	✓	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	
Exposed Machinery Casings on Super-structure Decks ...	✓	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	Hinged steel doors, permanently attached, and capable of being closed and secured both sides.	
Deckhouses on Flush Deck Ships ...	✓	

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:-



NOTE: PLEASE SEE ALSO SEPARATE SKETCH FOR STAIRWAY OPENINGS & ENTRANCE HOUSES.

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

The survey was carried out afloat and was confined to the items detailed in this Report.

The following particulars were taken from the Displacement Scale:-

DRAFT	FULL D	T.P.I.
30	24 200	78.1
31	25 160	78.5
TOP OF SCALE → 32	26 200	78.9

(NOTE: Since the date of build by Messrs. Beardmore, a complete fore end has been fitted. These are stated to have been corrected for this.)

Please add to items to be done:-

- (i) Hatch covers at nos 1 & 2 Hatch on B deck to overhaul and renew as required.
- (ii) Bars as covers to be sufficient for airpipes where missing.

Bottom sill of lowest sidescuttle below D Deck $33' + 5" = 3' - 2"$
 Top of keel to D Deck & sheer @ lowest sidescuttle = $34' - 4"$
 Top of keel to sill of lowest sidescuttle = $31' - 2"$
 Max. permissible mild draught = $30' - 8"$

Builder's name and yard number

Wm. Beardmore 584.

Names of sister ships

Owners

Anchor Line (Henderson Bros.)

Fee £

17 : 0 : 0

Received by me



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