

Rpt. C.11.

WRECK SECTION No. 234

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 25104
1300.
(For London Office only.)

-1 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Poop, Bridge and Forecastle

(Type of Superstructures.)

Ship's Name

Brambleleaf

Nationality and Port of Registry

British, London 140287

Gross Tonnage

5917 88.
5912

Date of Build

1917

Moulded Dimensions: Length

404.5

Breadth

54.25

Depth

35.16

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

12964

tons

Coefficient of fineness for use with Tables

.692

Port of Survey

Malta

Date of Survey

June 1932.

Name of Surveyor

P. J. Calcaterra

Particulars of Classification

100 A.1.

Carrying Petroleum in bulk.

Depth for Freeboard (D)

Moulded depth ... 35.16

Stringer plate06

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 35.28

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

(35.28 - 26.96) R = + 24.785

(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) 54.25

Standard Round of Beam = $\frac{B \times 12}{50} = 13.02$

Ship's Round of Beam = 13.5

Difference 13.5 - 13.02 = .48

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.48}{4} \times (1 - \frac{.06}{35.28}) = .12$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	36.50	35.65	8'		35.65
" overhang ...	20.0				
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	32.66	24.495	8'		24.495
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	78.86	78.86	8'		78.86
" overhang ...	5.72	2.86			2.86
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...	153.44	142.71			142.71
Total ...	178.24	167.325			167.325

Standard Height of Superstructure 7.5'

" " R.Q.D.

Deduction for complete superstructure 42" ✓

Percentage covered $\frac{S}{L} = \frac{44.06}{38.01} = 1.16$ " $\frac{S_1}{L} = \frac{41.36}{35.29} = 1.17$ " $\frac{E}{L} = \frac{41.36}{35.29} = 1.17$ Percentage from Table, Line A, Tanker 26.29%
(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 = $42 \times \frac{26.29}{100} = 11.04$

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	50.45	1	50.45	28.28	28.00	1	28.00
$\frac{1}{2}$ L from A.P. ...	22.45	4	89.80	18.13	13.43	4	53.72
$\frac{2}{3}$ L " ...	5.54	2	11.08	10.35	3.35	2	6.70
Amidships ...	-	4	-	-	-	4	-
$\frac{2}{3}$ L from F.P. ...	11.69	2	22.78	18.08	10.08	2	20.16
$\frac{1}{2}$ L " ...	44.90	4	149.60	46.40	40.29	4	161.16
F.P. ...	100.90	1	100.90	76.76	76.00	1	76.00
Total ...			454.08				345.68

Correction = Difference between sums of products

If limited on account of midship superstructure.

$$\left(\frac{75-S}{2L} \right) = \frac{2.11}{18} \times \frac{75-19}{2} = \frac{2.11 \times 53}{18} = +1.11$$

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 = 35.28

Summer freeboard = 6.074

Moulded draught (d) = 29.146

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 7.286 = 7.2

Addition for Winter North Atlantic Freeboard (if

required = 1" for every 100' = 4.04" = 4"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 12590$

Tons per inch immersion at summer load water line

T = 42.8350

Deduction = $\frac{\Delta}{40T}$ inches= $\frac{12590}{40 \times 42.83} = 7.34$

= 7.34 = 7.3

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{692+68}{1.36} = 1382$

+ -

Depth Correction ... 24.78

Deduction for superstructures ... 3.34

Sheer correction ... 1.11

Round of Beam correction08

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = 70.94

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

Tropical Fresh Water Line above Centre of Disc ... 14.4

Fresh Water Line " " ... 7.4

Tropical Line " " ... 7

Winter Line below " " ... 7

Winter North Atlantic Line " " ... 14

Tropical Fresh Water Freeboard ... 14.4

Fresh Water " " ... 7.4

Tropical " " ... 7

Winter " " ... 7

Winter North Atlantic " " ... 14

-8 JUL 1932

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway	Forecastle	Forward	Magazine	Engineers	Magazine	Upper	Upper	Upper	Upper	Upper	Upper
Dimensions of Hatchway	3'11" x 2'11"	7'11" x 5'4"	3'0" x 2'6"	4'11" x 4'4"	3'0" x 3'5"	2'1" x 1'11"	4'11" x 4'0"	2'2 1/2" x 2'2 1/2"	3'2" x 3'1 1/4"	2'5 1/2" x 2'5 1/2"	2'5 1/2" x 2'5 1/2"
COAMINGS	Height above Deck	1'3 1/2"	2'7 1/4"	3'4"	2'4"	2'10"	1'3 1/2"	1'6 1/2"	1'0"	1'0"	1'7 1/2"
	Thickness	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Stiffeners	...	...	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	Trunked	Trunked	Trunked	Trunked	...	...	...	...	...
FORE AND AFTERS	Number	...	1	...	Trunked	Trunked	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...
HATCH COVERS	Material	Plank Pine	Plank Pine	Steel	Plank Pine	Steel	Steel	Steel	Plank Pine	Plank Pine	Plank Pine
	Thickness	2 1/2"	2 1/2"	1/2"	2 1/2"	1/2"	1/2"	3/8"	2 1/2"	2 1/2"	1 1/2"
	How fitted	Thwartships	Thwartships	Loose	Fore & aft	Loose	Hinged	Bolted	Thwartships	Thwartships	Hinged
	Bearing Surface	2"	3"	Rubber joint	3"	...	Rubber joint	...	1 1/2"	2"	Rubber joint
Spacing of Cleats	...	18"	2'1"	8 studs spaced 1'6 1/2"	2'3"	8 studs spaced 1'7"	1 lever clip operated both sides	5" bolts spaced 12"	Flat bar and lock	Flat bar and lock	5 studs spaced 14"
Number of Tarpaulins	...	2	2	...	2	...	...	...	...	...	...
*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 :-

Stokehold gratings covered by strong steel hinged covers, 7 in No to forward and 7 in No to after stokehold.
 Fiddle and funnel ventilators in efficient condition.
 Engine Room Skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles :-

None fitted

Cargo bunker & summer tanks 2'11" x 2'11"
 Coaming 3'1 1/2" thickness 3/8" 38 off
 steel cover, leather joint, 8 studs spaced 14"
 Fresh water tanks 2 off 1'11" x 1'3"
 Coaming 6" x 3/8" steel cover hinged
 rubber joint, 6 studs spaced 14"
 Shaft tunnel 2 off 2'6" x 1'8 1/2"
 Coaming 3 1/2" x 3/8" steel cover, leather
 joint, 6 studs spaced 14"

Particulars of Companionways :-

Above Gunlayer Store, one companionway fitted over steel hatch with double doors (1 1/4" teak wood) facing aft. Size of door 2' x 3'1", Height above wood deck 1'10"

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

Forecastle dk 7'-16" diam 23'-32" high x 37 1/2"
 Boat deck 8'-25" diam 4'-60" high x 37 1/2"
 Poop deck 16' 6"-16" diam 8'-14" high x 25"
 See attached list! All vents constructed in accordance with the Rules & closed by canvas covers
 or 1) wood plug & canvas cover
 or 2) Patent French type
 or 3) mushroom cover.

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

Forecastle 4" x 6" diam 10" x 11" high to c'dams & peak tanks & living spaces.
 Freeboard 6" x 4" 29" " " c'dams.
 Poop dk 4" diam 6" x 14" 6'10" x 14" high to c'dams & living spaces.
 all air pipes closed by canvas covers. Gooseneck air pipe & cock is fitted to the hatch cover of each oil fuel bunker on the flood deck.
 See attached list.

Particulars of Gangway Cargo and Coaling Ports :-

None fitted



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"Brambleleaf"

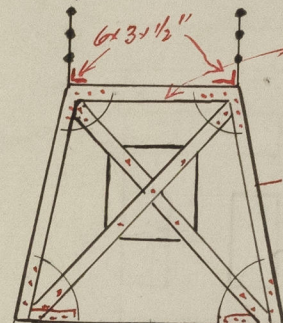
Particulars of Scuppers and Sanitary Discharge Pipes —

all sanitary discharge pipes fitted with storm valves at the ship's side
waterway scuppers & peak discharge & discharge from the galley not fitted with storm valves.

Particulars of Side Scuttles: Six scuttles, port and starboard, fitted between main and freeboard decks leading into store room, capstan flat and cable working spaces, also 4 scuttles, port and starboard, in poop space leading into steering gear compartment and workshops. The scuttles are of the service pattern fitted with hinged deadlights. ✓

Particulars of Guard Rails: — Forecastle, Bridge and Poop decks. — 3' 6" high having 3 rods and stanchions 4' 8" apart except in way of boat crutches on boat deck, in lieu of which stanchions 2' 8" high and 8' 5" apart are fitted with slip and screw attached to 2" F. S. W. R. Freeboard deck. — Rails fitted between bulwarks 3' 9½" high and 4' 3" apart fitted with 3 rods except where stanchions are of the removable type where chains are fitted instead of rods. ✓

Particulars of Gangways, Lifelines, etc. —



No lifelines fitted, gangway extending from poop to bridge, and from bridge to forecastle. The gangway is 6 feet wide, 3" pitch pine and supported as per sketch, spaced 7' 6" average.

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 ... End. ...	36'	3' 9"	Nil	Nil	Nil	34.0
Forward Well ... End. ...	39'	3' 9"	5' 10" x 1' 10" 3' 0" x 1' 6" 4' 2" x 1' 10"	3 2 1	7.19 feet 48	36.58 ft

State position of each freeing port (F. and A. position and height above deck edge) { After Well: — End: — 19' 6" and 32' 4" from forecastle bulkhead, 12" above deck edge. Forward Well: — End: — }
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — Freeing ports with 3 rods without shutters. Edge of sheerstrake 12" above deck. Scupper holes through gunwale angle bar between bridge and poop bulkheads, 6 in No size 6" x 4" each side.
 Additional area where sheer is less than standard. ✓

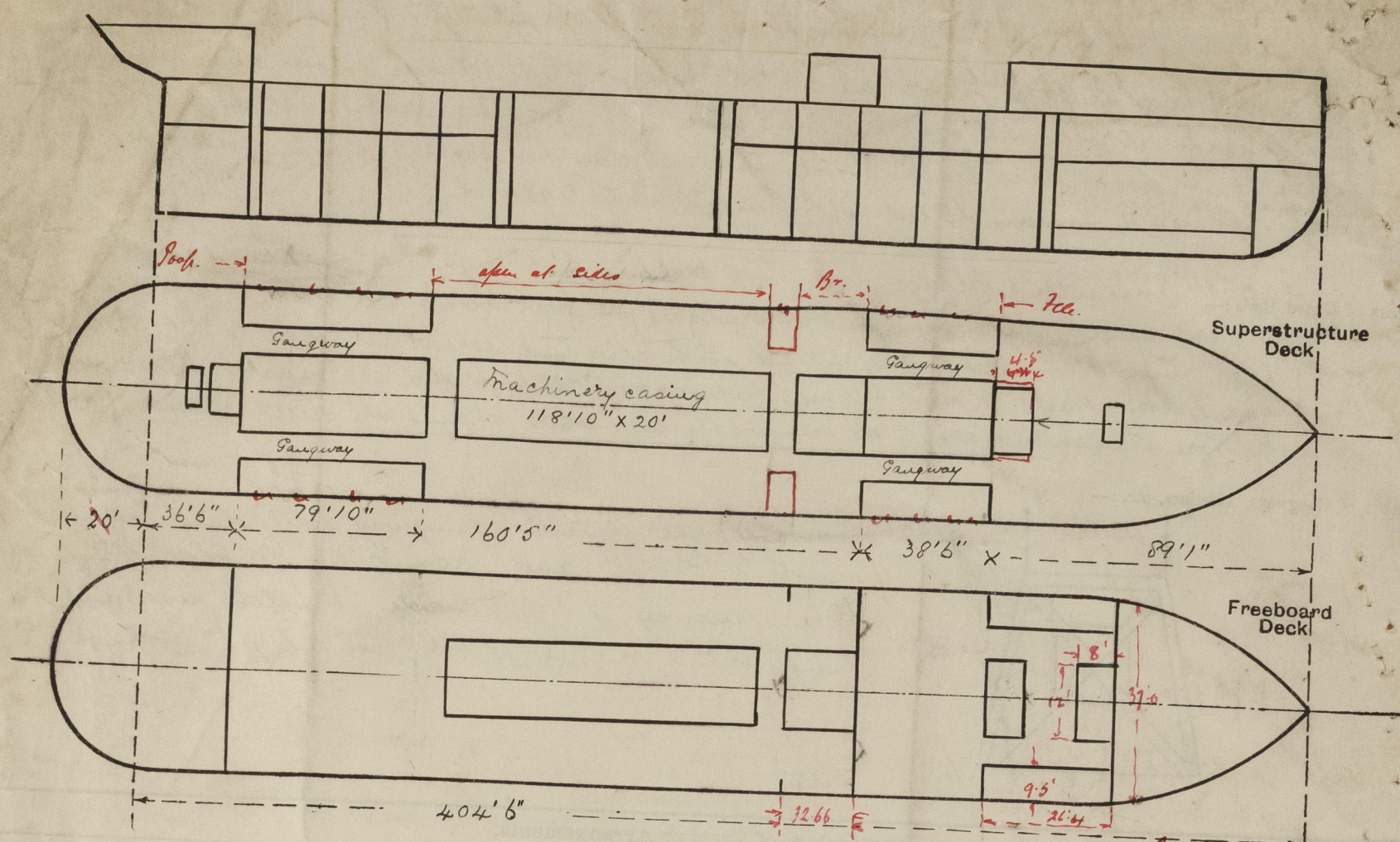
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...		3/8"	6" x 3 3/4" x 7/8" bulb angle	41"	3 1/2" x 3 1/2" x 3/8"	None	24"	9' 6 1/8"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...		5/16"	3 1/2" x 3" x 3/8" bulb angle	36"	3" x 3" x 3/8" bracket top and bottom	4' 9" x 2' 3"	24"	7' 11"
Bridge, Forward Bulkhead ...		3/8"	7 1/2" x 3" x 3/8"	30"	— do —	4' 4 1/2" x 2' 4 3/4"	19"	8' 2"
Forecastle Bulkhead ...		3/8"	3 1/2" x 3 1/2" x 3/8"	33"	3 1/2" x 3 1/2" x 3/8"	4' 8" between side houses and deck direction	—	8' 0"
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Freeboard or Raised Quarter Deck ...		3/8"	3" x 4" x 3/8"	33"	brackets top and bottom			7' 10 1/4"
Exposed Machinery Casings on Superstructure Decks ...		5/16"	with ten B.A. screws 9 x 3 1/2" in Kelly Coaming and 1 into 6 B.A. casing 3 x 4 x 3/8"	— do —				2' above wood deck
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...								
Deckhouses on Flush Deck Ships ...	12' 11" x 7' 0 1/2"	3/8"	4" x 3" x 3/8"	31"		4' 11" x 2' 2"	16" above wood deck	7' 3"

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

Poop Bulkhead ...	No openings. ✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	One hinged teak wood door to living quarters 4' 9" x 2' 3". ✓
Bridge, Forward Bulkhead ...	3 in No scuttles leading 2 on each side to alleyways and 4 to living quarters. Hinged steel weather tight doors, 2 in No, 4' 9" x 2' 3" with dogs manipulated from both sides. ✓
Forecastle Bulkhead ...	Solid hinged wood doors 4' 8" x 2' 6" placed 2' fore side of after end. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Deck ...	8 in No on each side, steel hinged W.T. doors fitted with rubber joint and dogs manipulated 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, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



$Fee\ 89.08 - 10.50 = 84.58$
 $Fee\ again\ 89.08 - 26.33 = 62.75$
 $+ (26.79.5) \times (8 \times 6)$
 18.5
 78.56
 84.58
 5.52

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

Longitudinal framing with web frames at intervals.

Builder's name and yard number Russel & Co., Port Glasgow.

Names of sister ships

Owners The Admiralty.

Fee £ : : Received by me



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