

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *complete superstructure with Loungage opening*Port of Survey *London*

(Type of Superstructures.)

Date of Survey (*Final*) *25th April 1932*

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>PORT FREMANTLE</i>	<i>British London</i>	<i>149807</i>	<i>8072</i> 8489 <i>8496.5 (21/2/39)</i>	<i>1927-4</i>

Name of Surveyor *James S. Butler*

Moulded Dimensions: Length *475.4* Breadth *63.0* Depth *34.75*
Moulded displacement at moulded draught = *85* per cent. of moulded depth *18285* tons
Coefficient of fineness for use with Tables *.724* ✓

Particulars of Classification *100 A1 with freeboard*

Depth for Freeboard (D)
Moulded depth ... *34.75*
Stringer plate ... *.04*
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = *34.79*

Depth correction
(a) Where D is greater than Table depth
(D-Table depth) R =
 $(34.79 - 31.70) \times 3.0 = +9.27$
(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) *63.0*
Standard Round of Beam = $\frac{B \times 12}{50} = 15.12$
Ship's Round of Beam = *15.34*
Difference *.63*
Restricted to
Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.63}{4} (1 - 99.42) = -1.11$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	24.29	24.29	8'-7"	✓	24.29
" overhang ...			+3" SHEATHING		
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	445.61	445.61	8'-7"	✓	445.61
" overhang aft ...			+3" SHEATHING		
" overhang forward ...					
Forecastle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...		$\frac{1}{2}$ DIFF.			
Tonnage opening aft ...	5.50	2.75	8'-7"	✓	2.75
" forward ...					
Total ...	475.40	472.65			472.65

Standard Height of Superstructure *7'-6"*
" " R.Q.D. ✓
Deduction for complete superstructure *42.00*
Percentage covered $\frac{S}{L} = 100$
" " $\frac{S_1}{L} = 99.42$
" " $\frac{E}{L} = 99.42$
Percentage from Table, Line A. *99.28*
(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) *C.S.S.*
Deduction = $42.0 \times 99.28 = -41.70$

SHEER CORRECTION.

ACTUAL HEIGHT OF TWEEN DECK *8'-1"*
STANDARD " " " *7'-6"*
" " " " *1'-4"*

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	57.54	1		57.54	57.54	70.0	1		70.00
$\frac{1}{2}$ L from A.P. ...	25.60	4		102.40	23.12	31.15	4		124.60
$\frac{2}{3}$ L " ...	6.33	2		12.66	6	7.70	2		15.40
Amidships ...	-	4		-	0	-	4		-
$\frac{2}{3}$ L from F.P. ...	12.66	2		25.32	11.34	13.64	2		27.28
$\frac{1}{2}$ L " ...	51.21	4		204.84	47	55.18	4		220.72
F.P. ...	115.08	1		115.08	108.16	124.0	1		124.00
Total ...				517.84					582.00

Mean actual sheer aft = *EXCESS*
Mean standard sheer aft

Mean actual sheer forward = *EXCESS*
Mean standard sheer forward

Length of enclosed superstructure forward of amidships =
" " aft of " = } *C.S.S.*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{64.16}{18} \left(\frac{75-50}{25} \right) = -89$

If limited on account of midship superstructure. *C.S.S.*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 = *34.79*
Summer freeboard = *5.40*
Moulded draught (d) = *29.39*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 18273$

Tons per inch immersion at summer load water line

 $T = 59$ Deduction = $\frac{\Delta}{40T}$ inches $= 7.74 = 7\frac{3}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{724+68}{1.36} = \frac{1.404}{1.36}$

	+	-
Depth Correction ...	9.27	-
Deduction for superstructures ...	-	41.70
Sheer correction ...	-	89
Round of Beam correction ...	-	-
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-

9.27 42.59 - 33.32
Summer Freeboard = *64.68*

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

Exp	Tropical Fresh Water Line above Centre of Disc ...	15"	Tropical Fresh Water Freeboard ...	5'-4 $\frac{3}{4}$ "
st	Fresh Water Line " " ...	7 $\frac{3}{4}$ "	Fresh Water " " ...	4'-1 $\frac{3}{4}$ "
Mac	Tropical Line " " ...	7 $\frac{1}{2}$ "	Tropical " " ...	4'-9"
	Winter Line below " " ...	7 $\frac{1}{2}$ "	Winter " " ...	4'-9 $\frac{1}{2}$ "
	Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	6'-0"

30 APR 1932

MARKING FORM
JUL 1940MARKING FORM
JUL 1939MARKING FORM
JUL 1935

17 AUG 1935

RECEIVED 4 MAY 1935

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
← SUPERSTRUCTURE DECK — * FREEBOARD DECK — →									
Description of Hatchway	N ^o 1	N ^{os} 2 & 4	N ^{os} 3 & 5	TONNAGE HATCH	N ^o 1	N ^{os} 2 & 4	N ^{os} 3 & 5		
Dimensions of Hatchway	29'3" x 20'0"	30'3" x 20'0"	24'9" x 20'0"	5'6" x 20'0"	29'3" x 20'0"	30'3" x 20'0"	24'9" x 20'0"		
COAMINGS	Height above Deck	30"	30"	30"	9"	9"	9"		
	Thickness	4 1/4"	4 1/4"	4 1/4"	5 0"	4 1/4"	4 1/4"		
	Sides	4 1/4"	4 1/4"	4 1/4"	5 0"	4 1/4"	4 1/4"		
	Ends	4 1/4"	4 1/4"	4 1/4"	5 0"	4 1/4"	4 1/4"		
COAMINGS	Stiffeners	BULB	ANGLE	STIFFS	NONE	NONE	NONE		
	Brackets, Stays	AND STAYS FITTED			"	"	"		
HATCH BEAMS	Number	5	5	4	3	2	4		
	Spacing	4'-10 1/2"	5'-0 1/2"	6'-2 1/4"	4'-10 1/2"	5'-0 1/2"	6'-2 1/4"		
	Scantling and Sketch	4 x 3 x 4 1/4	4 x 3 x 4 1/4	4 x 3 x 4 1/4	4 x 3 x 4 1/4	4 x 3 x 4 1/4	4 x 3 x 4 1/4		
	Bearing Surface	18" x 36"	13" x 34"	13" x 34"	NONE	18" x 36"	18" x 36"		
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
FORE AND AFTERS	Bearing Surface								
HATCH COVERS	Material	W. PINE	W. PINE	W. PINE	W. PINE	W. PINE	W. PINE		
	Thickness	3"	3"	3"	3"	3"	3"		
	How fitted	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT		
	Bearing Surface	3"	3"	3"	3"	3"	3"		
Spacing of Cleats	24"	24"	24"	NONE	24"	24"	24"		
Number of Tarpaulins	2	2	2	2	2	2	2		
*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i> Are battens and wedges efficient and in good condition? <i>Yes</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i> Are lashings provided in accordance with rule requirements? <i>Yes</i>									

Particulars of fiddley, funnel and ventilator coamings:—

Fiddley Vents in efficient condition.
 Engine skylight of steel efficiently constructed.
 No stovehold gratings etc. (Motor Vessel)

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

Entrance to Hold aft end of Topgallant Forecastle. Steel door with 23" sill.
 Entrance to Hold aft end of Forward House. Steel door with 17" sill.
 Entrance to Steering gear in House at aft end. Teakwood door with 15 1/2" sill.
 Six Entrances in Midship House. Teakwood doors with 15" sills.
 One Entrance in Midship House to trunk to below Freeboard deck. Steel W.T. door with 15" sill.
 All the above doors operated from both sides

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

Two vents on Forecastle dk 19" dia. Coamings 40" x 40 led to Hold spaces.
 Fourteen vents on Superstructure dk 14" to 19" dia. Coamings 36" x 40 led to Hold spaces.
 Five vents on Superstructure dk 6" to 11" dia. Coamings 30" to 36" led to Cofferdam, Duck Keel, + Store room.
 All vents constructed in accordance with Rules. Vents to spaces below Freeboard dk closed with wood plugs and canvas covers.

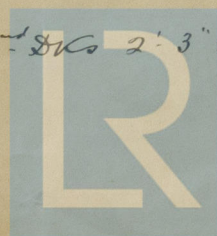
Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

air pipes on Superstructure dk 22" to 26" high x 2 1/2" to 6" dia from DB. + Deep tanks etc.
 on Forecastle dk 21" high x 3 1/2" dia from Fore peak + N:1 DB tank.
 closed with canvas covers.

Cargo and Coaling Ports:—

argo door each side between Freeboard + Superstructure decks 5'-0" x 4'-0"
 ly constructed.
 Heat ports each side between Freeboard + 2'-0" x 2'-3" x 2'-0" efficient
 constructed.

Permanently closed
 See RPLS C11 (contd)



Lloyd's Register
 Foundation

Particulars of Scuppers and Sanitary Discharge Pipes —

Eight scuppers each side from superstructure deck discharging above deck ✓
 Four scuppers each side from Freeboard deck. Wood plugs at inner end. No storm valves fitted.
 All bath and sanitary discharge pipes fitted with storm valves at ship's sides, and efficient traps at inner end. ✓

Particulars of Side Scuttles:

All side scuttles of substantial construction and fitted with hinged deadlights. ✓

Particulars of Guard Rails:—

Guard rails on Topgallant Forecastle deck 3'6" high having 3 rods, and stanchions spaced 4'6" apart. ✓
 Guard rails on forward and after ends of superstructure deck 3'9" high having 4 rods, and stanchions spaced 5'0" apart. ✓
 Steel bulwarks on superstructure deck amidships 3'9" high efficiently constructed and supported. ✓

Particulars of Gangways, Lifelines, etc.:—

None. ✓

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 { Lounage Opening	—	—	24" x 12"	One	2 Sq ft	—
Forward Well	—	—	—	—	—	—

State position of each freeing port ... { After Well:— Ford end of Lounage Opening. Height above DW. 10"
 (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:— Steel hinged shutters. No bars.
 Additional area where sheer is less than standard. ✓

Particulars of Superstructures, Trunks, Casings, Deckhouses.

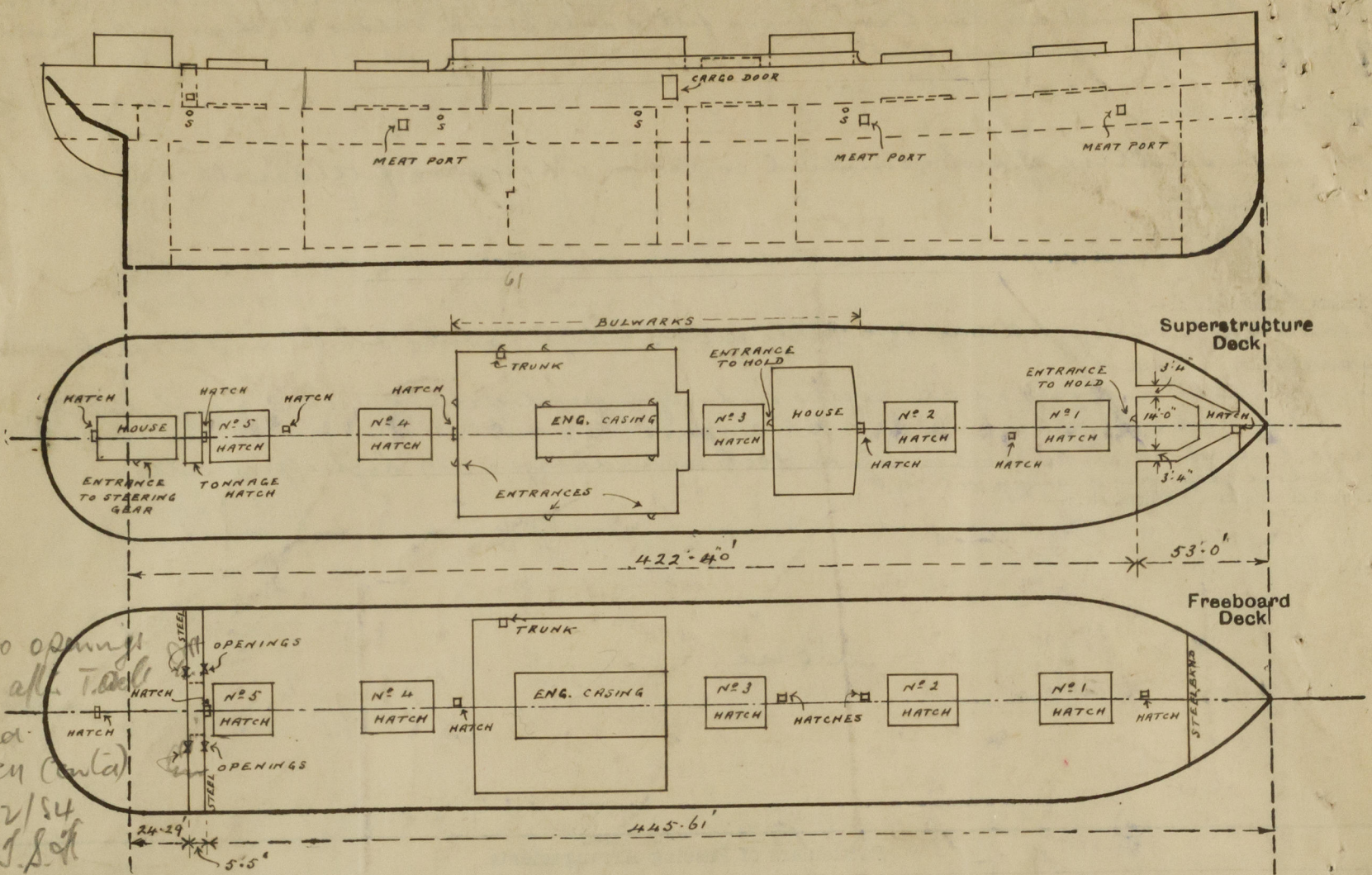
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	25-	angles 3 x 2 1/2 x 30	42"	None	5'-3" x 4'-0"	16"	8'-7"
Raised Quarter Deck Bulkhead	—	—	—	—	—	—	—	—
Bridge, After Bulkhead	—	25-	angles 3 x 2 1/2 x 30	42"	None	5'-3" x 4'-0"	16"	8'-7"
Bridge, Forward Bulkhead	—	—	—	—	—	—	—	—
Forecastle Bulkhead (Topgallant)	✓	25-	angles 3 1/2 x 3" x 30	about 36"	None	5'-0" x 2'-3"	12"	7'-6"
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	✓	25-	3" x 2 1/2 x 30	32"	None	None	✓	8'-7"
Deckhouses on Flush Deck Ships	—	—	—	—	—	—	—	—

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

Poop Bulkhead	✓	No openings
Raised Quarter Deck Bulkhead	✓	Weather boards in riveted channels full height of openings
Bridge, After Bulkhead	✓	Weather boards in riveted channels full height of openings
Bridge, Forward Bulkhead	✓	Steel doors in aft Bulkhead. Leakwood doors in fore & aft bulkheads. All doors operated from both sides
Forecastle Bulkhead (Topgallant)	✓	
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	✓	
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:—

Port Fremantle



Superstructure deck sheathed with 3" pitch pine. Freeboard deck steel only.
Topgallant Forecastle deck sheathed with 2 1/2" pitch pine.

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

Small Hatchways.

Position	N ^o	Size	Coamings	Battening down arrangements
Superstructure DK to Fore Peak	1	3'-2" x 2'-11"	2'-0" x .40"	Wood covers + deals, battens, tarpaulins &c.
" " " " " " " "	2	3'-0" x 2'-1"	2'-0" x .40"	Wood covers + deals, battens, tarpaulins &c.
" " " " " " " "	2	2'-0" x 2'-0"	2'-2" x .40"	Steel hinged covers, with bolts + butterfly nuts.
" " " " " " " "	1	2'-11" x 2'-7 1/2"	2'-0" x .40"	Wood covers + deals, battens, tarpaulins &c.
Superstructure DK to Cruiser Stern	1	3'-11" x 3'-0"	1'-7" x .40"	Steel hinged covers, with bolts + butterfly nuts.
Freeboard DK to N ^o 1 Hold	1	4'-2" x 2'-10"	9" Bull Angle	Wood cover + deals, battens, tarpaulins &c.
" " " " " " " "	1	4'-2" x 2'-10"	" " "	" " " " " " " "
" " " " " " " "	1	3'-0" x 2'-1"	" " "	" " " " " " " "
" " " " " " " "	1	4'-2" x 2'-10"	" " "	" " " " " " " "
" " " " " " " "	1	3'-0" x 2'-4"	" " "	" " " " " " " "
Freeboard DK to Cruiser Stern	1	3'-11" x 3'-0"	" " "	" " " " " " " "

Survey held in Dry dock, and afloat.
The vessel trades between the United Kingdom and Australia.
29'-0" EXT. = 17890 TONS
85% KEEL 29'-8 1/2" = 487 TONS
8 1/2" x 59.10 = 18377 x .995 = 18285

Builder's name and yard number Workman Clark & Co Ltd. N^o 489

Names of sister ships

OWNERS Commonwealth & Dominion Line Ltd.

Fee £ 16 : 3 : 0 Received by me 16/4/32