

10 AUG 1932

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

GLASGOW REPORT No 52499.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ ^{MOTORSHIP}

having a forecastle on a shelter deck with tonnage opening.

Port of Survey **Glasgow**Date of Survey **8th Aug. 1932**Name of Surveyor **H. Thomson**Particulars of Classification **+ 100 A.1.****S.S. Low, No. 19**

(Type of Superstructures.)

Ship's Name **"PORT DUNEDIN"** Nationality and Port of Registry **British London** Official Number **148599** Gross Tonnage **7463** Date of Build **1925-5**

Moulded Dimensions: Length **465'-0"** Breadth **59'-6"** Depth **35'-2"** Moulded displacement at moulded draught = 85 per cent. of moulded depth **17,094** tons

Coefficient of fineness for use with Tables **.723**

Depth for Freeboard (D)

Moulded depth ... **35.18**

Stringer plate ... **.48** ... **.04**

Sheathing on exposed deck

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

Depth for Freeboard (D) = **35.21**

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = **(35.21 - 31.00) 3.00 = 12.63**

(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) **59.5**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **14.28**

Ship's Round of Beam = **14.2**

Difference **.22**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.22}{4} (1.006) \text{ NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	24.3	24.30	8'-7"		24.30
" overhang ...	<i>none</i>		+3'-5" Skelly		
Bridge enclosed ...					
" overhang aft ...	435.2	435.20	8'-7"		435.20
" overhang forward ...			+3'-5" Skelly		
Forecastle enclosed ...					
" overhang ...	<i>none</i>				
Forecastle ...					
Tonnage opening aft ...	5.5	2.75			2.75
" forward ...					
Total ...	465.0	462.25			462.25

Standard Height of Superstructure **7.5**

" " R.Q.D.

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} = 100.0$

" " $\frac{S_1}{L} = 99.40$

" " $\frac{E}{L} = 99.40$

Percentage from Table, Line A. (corrected for absence of forecastle (if required))

Percentage from Table, Line B. **99.26** (corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **41.69**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	56.50	1		56.50	51	41.5	1		67.50
$\frac{1}{8}L$ from A.P. ...	25.14	4		100.56	22	22.2	4		120.16
$\frac{3}{8}L$ " ...	6.21	2		12.42	5	5.53	2		14.84
Amidships ...	✓	4		✓	-	-	4		✓
$\frac{5}{8}L$ from F.P. ...	12.43	2		24.86	10	11.66	2		26.08
$\frac{7}{8}L$ " ...	50.28	4		201.12	44	44.24	4		210.96
F.P. ...	113.00	1		113.00	102	102.0	1		118.50
Total ...				508.46		416.5			558.04

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{508.46 - 558.04}{18} = \frac{-49.58}{18} = -2.75$

If limited on account of midship superstructure.

Mean actual sheer aft = **Excess**Mean actual sheer forward = **Excess**Length of enclosed superstructure forward of amidships = **0.88**

" " aft of " =

actual sheer deck **2-10 1/2**
Standard **7.6**
1-4 1/2Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **35.20**

Summer freeboard = **5.42**

Moulded draught (d) = **29.78**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **7.44 = 7 1/2**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 17,180$

Tons per inch immersion at summer load water line

T = **55.2**Deduction = $\frac{\Delta}{40T}$ inches**7.78 = 7 3/4**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{.723 + .65}{1.36} = \frac{1.403}{1.36}$ Depth Correction ... **12.63**Deduction for superstructures ... **41.69**Sheer correction ... **.69**

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

12.63 42.38 29.75Summer Freeboard = **64.89**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **mm**, Steel, Deck **5'-5"**Tropical Fresh Water Line above Centre of Disc ... **15 1/4**Fresh Water Line " " ... **7 3/4**Tropical Line " " ... **7 1/2**Winter Line below " " ... **7 1/2**Winter North Atlantic Line " " ... **7 1/2**Tropical Fresh Water Freeboard ... **4-1 3/4**Fresh Water " " ... **4-9 1/4**Tropical " " ... **4-9 1/2**Winter " " ... **6-0 1/2**

Winter North Atlantic " " ...

MARKING FORM

20 FEB 1934

MARKING FORM

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31 AUG 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

		HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS																					
		shelter deck					upper deck					shelter deck					U.D.						
Description of Hatchway		Nº1	Nº2	Nº3	Nº4	Nº5	Nº1	Nº2	Nº3	Nº4	Nº5	HATCH IN F.C.L.E.	ESCAPE HATCH FOR DECK	ESCAPE HATCH AFTER DECK	ESCAPE HATCH AFTER DECK	ESCAPE HATCH AFTER DECK	ESCAPE HATCH AFTER DECK	TO STEERING GEAR	ESCAPE HATCHES	TRIMMING HATCHES	TENNAGE OPENING		
Dimensions of Hatchway		27'-0"	30'-3"	26'-9"	30'-3"	24'-9"	27'-0"	30'-3"	24'-9"	30'-3"	24'-9"	3'-0"	2'-0"	2'-5"	2'-0"	2'-4"	3'-3"	4'-3"	2'-5"	2'-6"	5'-6" x 19'-1"		
COAMINGS	Height above Deck	30	30	30	30	30						24	27	24	27	24	21	9	10				
	Thickness	44	44	44	44	44						36	36	36	36	36	36	36	36	36	9 x 36 x 5080		
	Sides Ends	44	44	44	44	44																	
	Stiffeners	7x3x40	7x3x40	7x3x40	7x3x40	7x3x40																	
Brackete, Stays		2	2	2	2	2																	
HATCH BEAMS	Number	5	5	4	5	4	5	5	4	5	4												
	Spacing	4'-6"	5'-0"	4'-11"	5'-0"	4'-11"	4'-6"	5'-0"	4'-11"	5'-0"	4'-11"												
	Scantling and Sketch	15E x 36	12E x 33	12E x 33	12E x 33	12E x 33	18 x 40	17E x 36	17E x 36	17E x 36	17E x 36												
	Bearing Surface	3	3	3	3	3	3	3	3	3	3												
FORE AND AFTERS	Number																						
	Spacing																						
	Unsupported Lengths																						
	Scantling* and Sketch																						
Bearing Surface																							
HATCH COVERS	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP	Hinged steel	WP	Hinged steel	WP	Hinged steel	WP	Hinged steel	WP	WP		
	Thickness	3	3	3	3	3	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E	2E		
	How fitted	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	W.T.	W.T.	W.T.	W.T.	W.T.	W.T.	W.T.	W.T.	F+A		
	Bearing Surface	3	3	3	3	3	3	3	3	3	3	3	2E	2E	2E	2E	2E	2E	2E	2E	2E		
Spacing of Cleats		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24		
Number of Tarpaulins		2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
*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?																							

Particulars of fiddle, funnel and ventilator coamings:—

Engine skylight of steel on casing top - strongly constructed ✓
Ventilators on casing top in good condition ✓

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:— escapes on shelter deck from hold.

Doors of steel plate hinged & secured by clips operated from both sides
Doors 5'-0" x 2'-0" with 18" sills. ✓

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

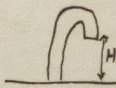
2	ventilators on forecabin deck to hold.	39 x 19 x .40
10	fore cabin	36 x 7 x .34
4	fore deck to hold	27 x 12 x .40
2	fore deck to hold	26 x 19 x .34
1	fore deck to hold	45 x 10 x .34
2	midship deck	45 x 16 x .34
2	midship deck	36 x 8 x .34
6	after deck to hold	36 x 12 x .40
2	after deck to hold	39 x 12 x .38
2	after deck to hold	36 x 19 x .40
2	after deck to hold	36 x 15 x .38
1	after deck to hold	45 x 10 x .34
	after deck to hold	38 x 12 x .34
	after deck to hold	18 x 12 x .40

Ventilator coamings constructed in accordance with the Rules and closed with wood plugs and canvas covers. ✓

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

1	air pipe on forecabin deck to f.p. tank	24" high x 3 1/2" dia
6	on fore deck to d.b. tanks	24" x 3
2	midship deck	26" x 3 1/2"
8	midship deck	27" x 3
11	after	30" x 3
3	after	30" x 5
2	after	33" x 5

no snifting holes fitted
no means of closing air pipes provided. ✓



Particulars of Gangway Cargo and Coaling Ports:—

1 cargo port 5'-3" x 4'-2" with 18" sill is fitted on p.s. sides on shelter tween decks where shown in sketch
The doors are strongly constructed and secured by bolts 18" apart ✓

3 meat ports 2'-3" x 2'-5" are fitted on p.s. sides below foreboard deck where shown in sketch
Bottom of ports 7'-6" below upper deck. ✓

The doors are strongly constructed and secured by 2 strongbolts ✓

Particulars of Scuppers and Sanitary Discharge Pipes:—

Scupper pipes 3" in diameter are led overboard from upper deck in positions shown in sketch
Sanitary pipes discharge below the upper deck where shown in sketch and have storm valves
at ships side.

Particulars of Side Scuttles:—

There are no side scuttles fitted below the main deck
Side scuttles in shelter beam deck + forecabin 10" dia. fitted with hinged deadlights.

Particulars of Guard Rails:—

Guard rails on forecabin deck 3'-9" high with 3 rods. Stanchions 4'-6" apart.
Guard rails on shelter deck 3'-9" high with 4 rods. Stanchions 5'-0" apart.
a bulwark 3'-9" high is fitted on shelter deck amidships

Particulars of Gangways, Lifelines, etc.:—

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Rule area each side
After Well ...	5'-6"	8'-7"	24" x 12"	1	2.0
Forward Well ...					

State position of each freeing port ... After Well:— 3'-0" from poop bulkhead. 15" above deck
(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:— fitted with shutters

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 ...	none	.30	3 x 3 x .30	36	none	5'-3" x 4'-0"	15"	
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...								
Bridge, Forward Bulkhead ...	none	.30	3 x 3 x .30	36	none	5'-3" x 4'-0"	15"	
Forecastle Bulkhead ...								
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks ...				none				
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	none	.34	4 x 3 x .32	33	none	none		
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead ...	shifting boards 3" thick in channels riveted to bulkhead. Full height of opening
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	
Bridge, Forward Bulkhead ...	shifting boards 3" thick in channels riveted to bulkhead. Full height of opening
Forecastle Bulkhead ...	
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks ...	none
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	none
Deckhouses on Flush Deck Ships ...	

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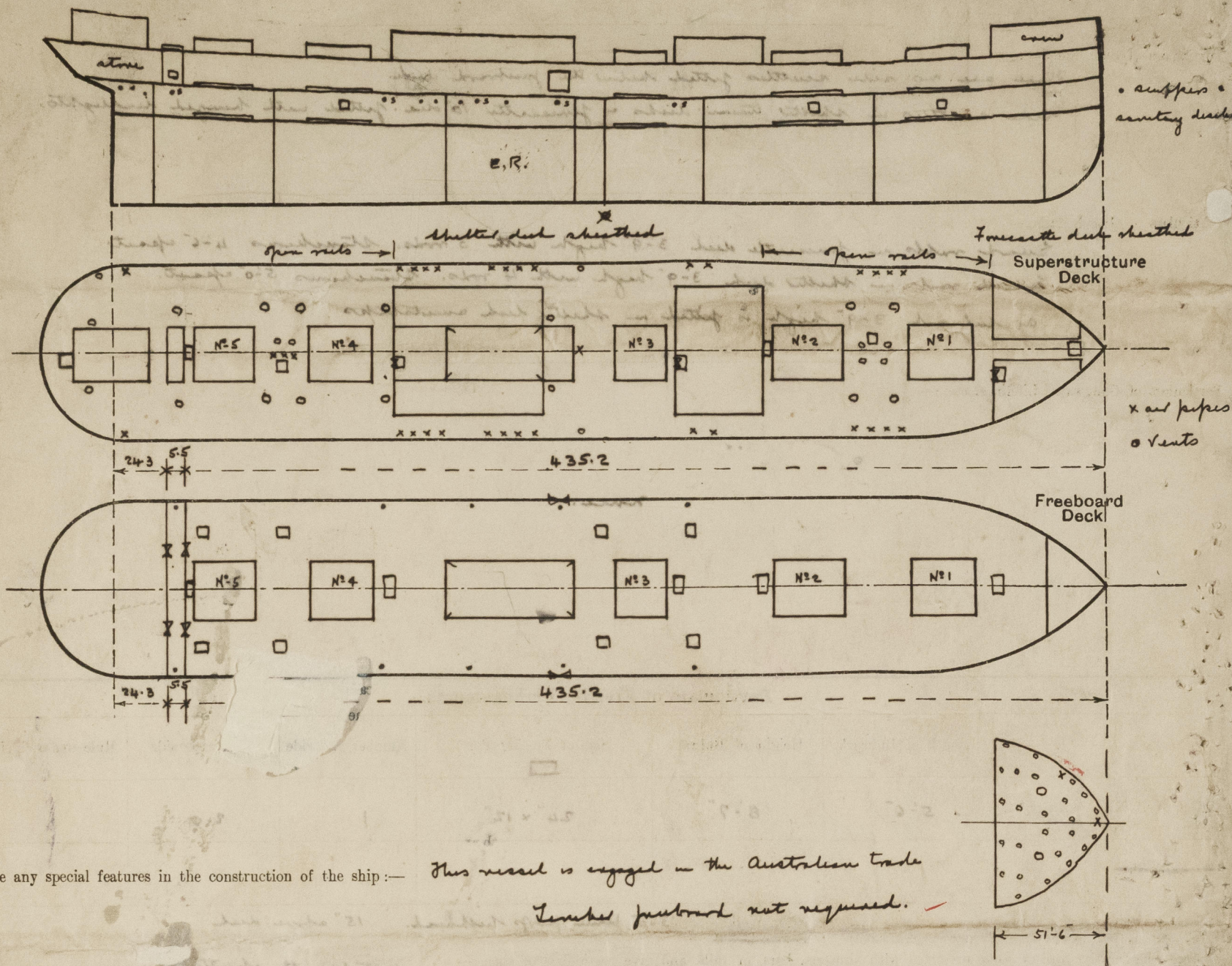


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T. J. J. J. J.

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:—



State any special features in the construction of the ship:— This vessel is engaged in the Australian trade

Timber freeboard not required. ✓

The survey on this vessel was held afloat and confined to an examination of the means for closing the openings in the decks and sides of the ship.

No part of a special survey has been carried out at this time.

29-3. Δ=16,630. T.P. 550.

35.17x85 = 29-10 3/4
Keel 29-10 3/4
29-10 3/4
30-1 1/2

29-3. 16,630.
10x55 550.
Shell 17,180.
86
17,094.

Builder's name and yard number Workman, Clark & Co Ltd No 477.

Names of sister ships not known

Owners Commonwealth & Dominion Line Ltd.

Fee £ 15 : 6 : 0

Received by me



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