

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **29451**
(For London Office only.)

31 MAR 1932

GLASGOW REPORT No. **52259**

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey GLASGOW
having POOP, BRIDGE AND FORECASTLE					Date of Survey 23RD MARCH 1932
(Type of Superstructures.)					Name of Surveyors H.T. + J.C.
Ship's Name "CARRON PARK"	Nationality and Port of Registry BRITISH GREENOCK	Official Number 145594	Gross Tonnage 2630	Date of Build 1920-11	Particulars of Classification + 100A1
Moulded Dimensions: Length 299.75 Breadth 43.5 Depth 24.25					
Moulded displacement at moulded draught = 85 per cent. of moulded depth 6045 tons					
Coefficient of fineness for use with Tables 787					

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ...	24.25	(a) Where D is greater than Table depth (D - Table depth) R = (24.25 - 19.98) 2.306		Moulded Breadth (B)	43'-6"
Stringer plate45			Standard Round of Beam = $\frac{B \times 12}{50}$ =	10.44
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$.04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	+ 9.94	Ship's Round of Beam =	11
Depth for Freeboard (D) =	24.29	If restricted by superstructures		Difference	(10.44 - 11) = .56
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$ =	$\frac{.56}{4} (514) = .07$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Roop enclosed ...	28.16	28.16	7'-6"		28.16	Standard Height of Superstructure 6.50
" overhang50	.25	7'-6"		.25	" " R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 35.31
" overhang						Percentage covered $\frac{S}{L} =$.4929
Bridge enclosed...	85.00	85.00	7'-6"		85.00	" " $\frac{S_1}{L} =$.4855
" overhang aft25	.19	7'-6"		.19	" " $\frac{E}{L} =$.4855
" overhang forward	.25	.12	7'-6"		.12	Percentage from Table, Line A. ✓
Fore enclosed 18m ...	33.59	29.98	7'-6"		29.98	(corrected for absence of forecastle (if required)) -
" overhang ...		1.80			1.80	Percentage from Table, Line B. 34.77
Trunk aft ...						(corrected for absence of forecastle (if required)) -
" forward ...						Interpolation for bridge less than 2L (if required) -
Tonnage opening aft ...						Deduction = 35.31 - 34.77 = - 12.28
" " forward						
Total ...	147.75	145.50			145.50	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	39.98	1		39.98	56	56.00	1		56.00	Mean actual sheer aft = Even
L from A.P. ...	17.79	4		71.16	22½	22.72	4		90.88	Mean actual sheer forward = Even
L " ...	4.39	2		8.78	5	5.68	2		11.36	Mean standard sheer forward
Amidships ...		4			0		4			Length of enclosed superstructure forward of amidships = 13.8
L from F.P. ...	8.78	2		17.56	11	11.33	2		22.66	" " aft of " = 14.8
L " ...	35.58	4		142.32	46	45.43	4		181.72	
A.P. ...	79.96	1		79.96	100	100.00	1		100.00	
Total ...				359.76					462.62	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{102.86}{18} \left(.75 - \frac{246}{514} \right) = -2.88$$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)	43.34
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	46.75
Depth to Freeboard Deck = 4.29	$\Delta =$ 6160		
Summer freeboard = 3.40	Tons per inch immersion at summer load water line	Depth Correction ...	9.94
Moulded draught (d) = 20.83	$T =$ 26.25	Deduction for superstructures ...	- 12.28
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 5.20	Deduction = $\frac{\Delta}{40 T}$ inches = 5.86	Sheer correction ...	- 2.88
Addition for Winter North Atlantic Freeboard (if required) = 2"		Round of Beam correction ...	- .07
		Correction for Thickness of Deck amidships ...	-
		Other corrections, scantlings, etc. ...	-
		Summer Freeboard =	41.46

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

Tropical Fresh Water Line above Centre of Disc ...	11"	Tropical Fresh Water Freeboard ...	2-6½
Fresh Water Line " " ...	5¼	Fresh Water " " ...	2-11¾
Tropical Line " " ...	5¼	Tropical " " ...	3-0¼
Winter Line below " " ...	5¼	Winter " " ...	3-10¾
Winter North Atlantic Line " " ...	7¼	Winter North Atlantic " " ...	4-0¾

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
UPPER DECK				BRIDGE DECK				CASING TOP		POOP DECK
Description of Hatchway	Nº 1	Nº 2	Nº 3	Nº 4	TRIMMING HATCH	COALING HATCHES AT FORE END	COALING HATCHES MIDSHIPS	COALING HATCH ABOARD FUNNEL	COALING HATCH FORE FUNNEL	TO STORE
Dimensions of Hatchway	30'-0" x 21'-0"	30'-0" x 21'-0"	30'-0" x 21'-0"	30'-0" x 21'-0"	20'-0" x 3'-0"	4'-10" x 2'-10"	4'-10" x 2'-10"	5'-0" x 12'-0"	5'-0" x 12'-0"	3'-1" x 2'-5"
COAMINGS	Height above Deck ... 30	30	30	30	11 x 3 1/2 x 4 1/2	40	40	9 x 3 1/2 x 4 1/2	12	24
Thickness ... 1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Stiffeners ... 8 x 3 x 40 BA	8 x 3 x 40 BA	8 x 3 x 40 BA	8 x 3 x 40 BA	8 x 3 x 40 BA	11 x 3 1/2 x 4 1/2	40	40	9 x 3 1/2 x 4 1/2	12	24
Brackets, Stays ... 2 c 2 1/2 DIA	2 c 2 1/2 DIA	2 c 2 1/2 DIA	2 c 2 1/2 DIA	2 c 2 1/2 DIA	11 x 3 1/2 x 4 1/2	40	40	9 x 3 1/2 x 4 1/2	12	24
HATCH BEAMS	Number ... 5	5	5	5	NONE	NONE	NONE	NONE	NONE	NONE
Spacing ... 5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	NONE	NONE	NONE	NONE	NONE	NONE
Scantling and Sketch	19 x 36	19 x 36	19 x 36	19 x 36	NONE	NONE	NONE	NONE	NONE	NONE
Bearing Surface	3	3	3	3	3	3	3	3	3	3
FORE AND AFTERS	Number ... NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Spacing ... NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Unsupported Lengths ... NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Scantling and Sketch ... NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Bearing Surface ... NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
HATCH COVERS	Material ... W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.
Thickness ... 2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
How fitted ... F + A	F + A	F + A	F + A	F + A	TRANSVERSE	TRANSVERSE	TRANSVERSE	F + A	F + A	F + A
Bearing Surface ... 3	3	3	3	3	3	3	3	3	3	3
Spacing of Cleats ... 24	24	24	24	24	24	24	24	30	30	19
Number of Tarpaulins ... 2	2	2	2	2	2	2	2	2	2	2

Particulars of fiddle, funnel and ventilator coamings:-

ENGINE ROOM SKYLIGHT OF STEEL ON TOP OF CASING. STRONGLY CONSTRUCTED.
FIDLEY OPENINGS PROTECTED BY STRONG HINGED STEEL COVERS.
VENTS ON CASING TOP IN GOOD CONDITION.

Particulars of Flush Bunker Scuttles:-

NONE

Particulars of Companionways:-

ENTRANCES TO CREWS QUARTERS ON POOP DECK. DOORS 4'-11" x 2'-0" WITH 15" SILLS.
DOORS 1 3/4 TEAK. MANIPULATED FROM BOTH SIDES.

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

HOLD VENT IN AFTER WELL. COAMING 36" HIGH x 17" DIA x 42"
2 " " " FORD " " 36 " x 17 " x 40 "
1 " " " " " 36 " x 17 " x 40 "
TUNNEL " " AFTER " " 42 " x 12 " x 32 " STAYED TO POOP BHP.
ENGINE ROOM VENT ON B.D.E. " 36 " x 18 " x 40 "
4 BUNKER VENTS ON B.D.E. " 36 " x 17 1/2 " x 30 "
1 VENT TO STORE ON FOLE D.E. " 36 " x 6 " x 30 "
12 " " ACC. ON POOP D.E. 24 " x 6 " x 4 " CAST IRON.

ALL 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 TO A.P. TANK ON POOP DECK 17" HIGH x 3 1/2" DIA.
2 " " " O.B. " IN AFTER WELL 17 " x 3 1/2 "
2 " " " " " FORD " " 17 " x 3 1/2 "
4 " " " " " ON BRIDGE D.E. 16 " x 3 1/2 "
2 " " " " " " 17 1/2 " x 3 1/2 "
1 " " " " " F.P. TANK ON FOLE D.E. 17 " x 3 1/2 "
SHIFTING HOLES FITTED IN AIR PIPES IN WELLS.
AIR PIPES CLOSED WITH PLUGS AND CANVAS COVERS.

Particulars of Gangway Cargo and Coaling Ports:-

NONE

CARRONPARK

Particulars of Scuppers and Sanitary Discharge Pipes:-

2 SANITARY DISCHARGE PIPES P + S. ARE FITTED IN POOP ABOVE FREEBOARD DECK WITH STORM-VALVES AT SHIPS SIDE AND TRAPS ON INNER END.

Particulars of Side Scuttles:

THERE ARE NO SIDE SCUTTLES BELOW FREEBOARD DECK.
SIDE SCUTTLES IN POOP AND FORECASTLE 9" DIAMETER PROTECTED BY HINGED IRON DEADLIGHTS.

Particulars of Guard Rails:-

GUARD RAILS ON POOP DECK 3'-0" HIGH WITH 3 RODS. STANCHIONS 5'-0" APART.
" " " BRIDGE " 3'-3" " 3 " " 4'-3"
" " " FORECASTLE " 3'-0" " 3 " " 4'-0"
A BULKWARK IS FITTED ON SIDES OF BRIDGE DECK FOR 1/2 OF DECK 3'-3" HIGH.

Particulars of Gangways, Lifelines, etc.:-

A LIFE LINE IS FITTED ALONGSIDE HATCHWAYS IN FORWARD AND AFTER WELLS WITH A GANGWAY BETWEEN THE HATCHWAYS AND FROM HATCHWAYS TO LADDERS LEADING TO SUPERSTRUCTURE DECKS. STANCHIONS 10'-0" APART.

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	46.75	3'-4"	33 x 18	4	16.5	15.35
Forward Well	45.0	3'-4"	33 x 18	4	16.5	15.0

State position of each freeing port ... After Well:- FROM BRIDGE AFTER BULKHEAD 15'-8", 25'-9", 35'-10", 60'-9"
(F. and A. position and height above deck edge) Forward Well:- " " FORWARD 11'-6", 21'-3", 36'-9", 55'-6"
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:- RAILS FITTED.
Additional area where sheer is less than standard.

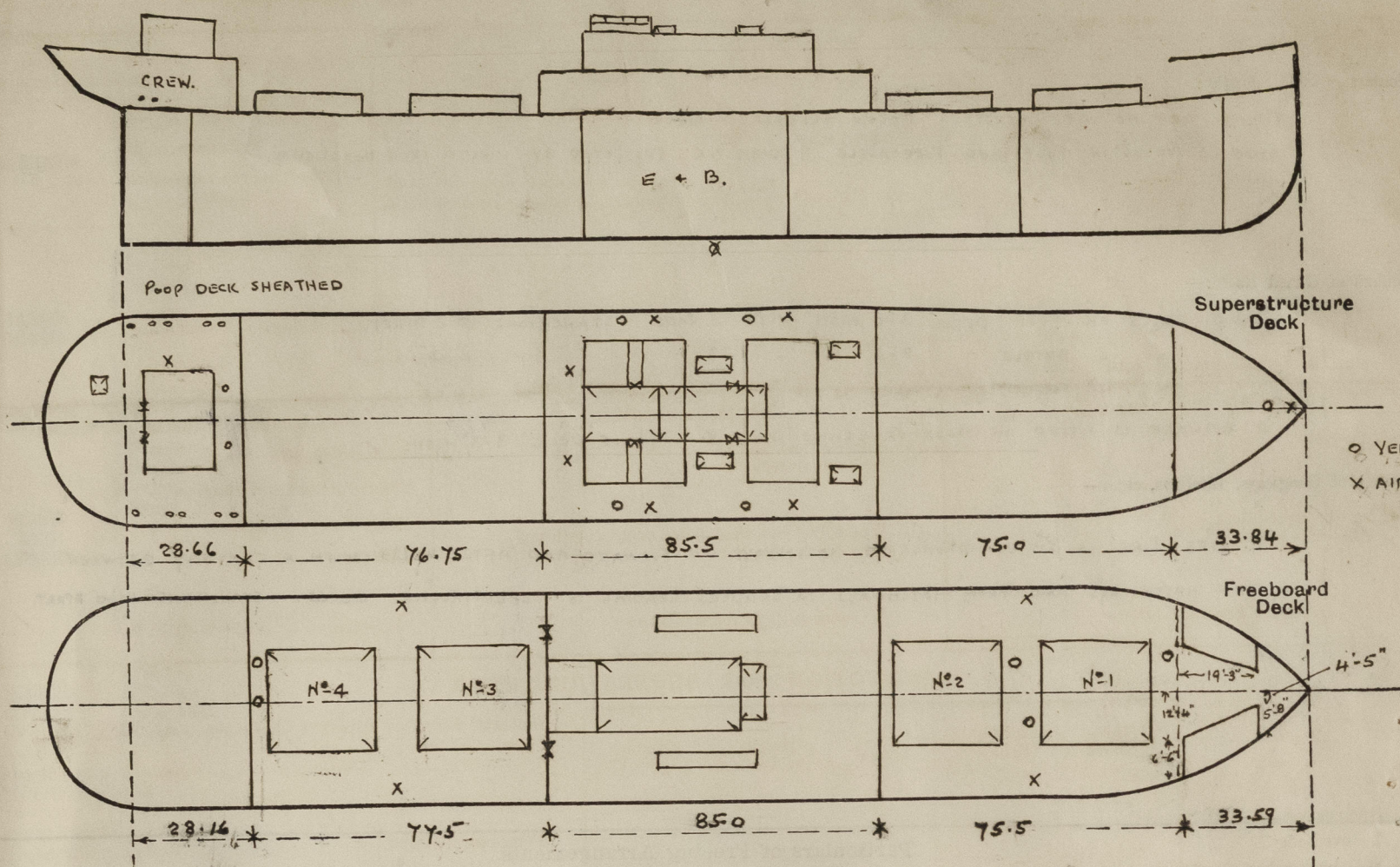
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	NONE	38	6 1/2 x 3 x 38 A	28	NONE	NONE	✓	✓
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	NONE	38	3 x 3 x 34 A	30	NONE	5'-0" x 3'-6"	18 1/2	✓
Bridge, Forward Bulkhead	NONE	38	9 x 3 x 40 BA	30	BRACKETS TOP & BOTTOM	NONE	✓	✓
Forecastle Bulkhead				NONE				
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	NONE	32	3 x 3 x 32	30	BRACKETS AT TOP	4'-6" x 2'-0"	18	7'-10"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	NONE	32	3 x 3 x 32	30	NONE	NONE	✓	7'-6"
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	NONE
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	SHIFTING BOARDS 3" THICK IN CHANNELS RIVETED TO BULKHEAD. FULL HEIGHT OF OPENING.
Bridge, Forward Bulkhead	NONE opening.
Forecastle Bulkhead	NONE opening.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	HINGED STEEL DOORS MANIPULATED FROM BOTH SIDES
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	NONE
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:—



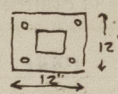
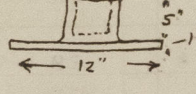
FULL DISPLACEMENT AT 21'-0" EXTREME DRAFT = 6160 TONS. TONS PER INCH = 26.25 TONS
 " " " 22'-0" " " = 6475 " " " = 26.37.

State any special features in the construction of the ship:— THIS VESSEL IS ENGAGED IN THE GENERAL CARGO CARRYING TRADE.
TIMBER FREEBOARD REQUIRED.

A HAND STEERING GEAR IS FITTED ON THE POOP DECK FOR USE AS AN EMERGENCY MEANS OF STEERING IN THE EVENT OF A BREAKDOWN IN THE MAIN STEERING ARRANGEMENTS.

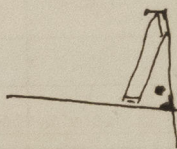
~~THE CENTRE LINE DIVISION OF THE DOUBLE BOTTOM TANKS IS STATED TO BE NON-WATERTIGHT THROUGHOUT THE WHOLE LENGTH OF THE DOUBLE BOTTOM.~~ *for the midship half length of holes closed by plate washers*

THE BULWARKS ARE 3'-4" IN HEIGHT SUPPORTED BY 7" BULB PLATE STAYS SPACED 5'-3" APART BUT NOT FITTED OVER DECK BEAMS.

CAST IRON SOCKETS   SECURED TO THE STRINGER PLATE BY 4 BOLTS ARE FITTED IN THE WELLS SPACED 7'-0" APART AND 3'-0" FROM POOP BULKHEAD, 6'-0" FROM BRIDGE AFTER BULKHEAD, 4'-0" FROM BRIDGE FORWARD BULKHEAD AND 5'-6" FROM FORECASTLE BULKHEAD.

EYE PLATES FOR LASHINGS ARE BEING FITTED. *10 feet apart & 6'-6" from bulkheads are adequately protected*

THE STEERING RODS IN THE AFTER WELL ARE PROTECTED BY THE BULWARK STAYS AS SHOWN IN SKETCH.



Builder's name and yard number FERGUSON BROS (PORT GLASGOW) LD. N° 258

Names of sister ships NONE

Owners DENHOLM LINE STEAMERS LD. (J. + J. DENHOLM.)

Fee £ 11 : 1 : 0. Received by me



© 2020

Lloyd's Register Foundation