

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Index. No. **25329**
(For London Office only.)

26 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey NEWCASTLE
having QUARTER DK, BRIDGE & FORECASTLE					Date of Survey 22nd July 1932
(Type of Superstructures.)					Name of Surveyor Young
Ship's Name LOWFIELD	Nationality and Port of Registry BRITISH LONDON	Official Number 140414	Gross Tonnage 1536	Date of Build 1917	Particulars of Classification + 100 A.I. S.S. Sh. No. 3-7-20
Moulded Dimensions: Length 240.05 Breadth 36.0 Depth 20-6 1/4 10.52					
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3204 tons					
Coefficient of fineness for use with Tables .744					
Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth 20.52		(a) Where D is greater than Table depth (D-Table depth) R = (20.56 - 16.90) / 1.846 = 8.42		Moulded Breadth (B) 36.0	
Stringer plate04		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50} =$ 8.64	
Sheathing on exposed deck T $\left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam = 9"	
Depth for Freeboard (D) = 20.56				Difference .36	
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.36^2}{4} \times .3069 = (-).03$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure 6.0
„ overhang						„ „ R.Q.D. 3.933
R.Q.D. enclosed	91.39	91.39	1'-6"	1.5 / 3.933	34.85	Deduction for complete superstructure 30.-
„ overhang						Percentage covered $\frac{S}{L} =$ 69.42
Bridge enclosed	51.75	51.75	7'-0"		51.75	„ „ $\frac{S_1}{L} =$ 69.31
„ overhang aft50	.25			.25	„ „ $\frac{E}{L} =$ 45.76
„ overhang forward	23.0	23.00	7'-0"		23.00	Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 32.39
Trunk aft						Percentage from Table, Line B. (corrected for absence of forecastle (if required))
„ forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction = .3239 x 30 = 9.72
„ „ forward						
Total	166.64	166.39			109.85	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate USED	S	M	Product	
A.P.	34.00	1		34.00	42	42.00	1		42.00	Mean actual sheer aft = excess Mean standard sheer aft
1/4 L from A.P.	15.13	4		60.52	18	18.96	4		75.84	Mean actual sheer forward = excess Mean standard sheer forward
1/2 L „	3.44	2		7.48	4	4.74	2		9.48	Length of enclosed superstructure forward of amidships = .096
Amidships	-	4		-	0	-	4		-	„ „ aft of „ = .10
3/4 L from F.P.	7.48	2		14.96	8	8.10	2		16.20	
1/4 L „	30.26	4		121.04	32.5	32.39	4		129.56	
F.P.	68.01	1		68.01	72	72.00	1		72.00	
Total				306.01					345.08	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{39.07}{18} \times (.75 - .3471) = (-).87$

If limited on account of midship superstructure. $.87 \times \frac{196}{200} = .85$

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	30.31
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.744 + .68}{1.36} = \frac{1.424}{1.36}$	31.74
Depth to Freeboard Deck = Ft.	$\Delta =$		
Summer freeboard =	Tons per inch immersion at summer load water line	Depth Correction 8.42	
Moulded draught (d) =	T =	Deduction for superstructures 9.72	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Sheer correction85	
Winter freeboard = $\frac{d}{4}$ inches =		Round of Beam correction03	
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships 2.50	
		Other corrections, scantlings, etc.	
		10.92 10.60 61 .32	
		Summer Freeboard = 32.06	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, **2 1/2**, Deck:— **2'-8"**

Tropical Fresh Water Line above Centre of Disc	
Fresh Water Line „ „	
Tropical Line „ „	
Winter Line below „ „	
Winter North Atlantic Line „ „	

Tropical Fresh Water Freeboard	
Fresh Water „ „	
Tropical „ „	
Winter „ „	
Winter North Atlantic „ „	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N ^o 1	N ^o 2	N ^o 3	N ^o 4	U. D.		U. D.		ESCAPES FROM HOLDS	
					CROSS BUNKER	SIDE CHAL HATCHES	BKR. HATCH	CHAIN LOCKER.		
Dimensions of Hatchway	22' 6" x 24' 6"	28' 0" x 25' 0"	27' 0" x 25' 0"	29' 3" x 24' 0"	5' 0" x 13' 6"	4' 3" x 2' 0"	6' 9" x 13' 6"	8' 0" x 4' 0"	1' 6" DIAM	
COAMINGS	Height above Deck ... 3' 6"	3' 6"	3' 6"	3' 6"	2' 0"	10' B.A.	10'	1' 6"	1' 6"	
	Thickness ... 4.4	4.8	4.8	4.6	4.0		3.5	3.5	3.0	
	Sides ... 4.0	4.0	4.0	4.0	4.0		3.5	3.5	3.0	
	Stiffeners ... 7" x 3" B.A.	7" x 3" B.A.	7" x 3" B.A.	7" x 3" B.A.						
	Brackets, Stays ... 2" x 7" B.P.	3" x 7" B.P.	3" x 7" B.P.	3" x 7" B.P.						
HATCH BEAMS	Number ... 3	4	4	5						
	Spacing ... 5-7 1/2	5-7 1/2	5-5	4-10 1/2						
	Scantling and Sketch	27" to 22"	32" to 26"	32" to 26"	30" to 24"					
		4.0	4.0	4.0	4.0					
	Bearing Surface ... 4" x 3" x 4.0	4" x 3" x 4.0	4" x 3" x 4.0	4" x 3" x 4.0						
		3 1/2	3 1/2	3 1/2	3 1/2					
FORE AND AFTERS	Number ...									
	Spacing ...									
	Unsupported Lengths ...									
	Scantling* and Sketch									
	Bearing Surface ...									
HATCH COVERS	Material ... W.P.				W.P.	W.P.	W.P.	W.P.	W.P.	
	Thickness ... 3"				3"	3"	3"	3"	TIGHT FITTING PLUG COVER & CANVAS COVER.	
	How fitted ... F & A				F & A					
	Bearing Surface ... 3"				1 3/4 x 3 1/2	1 1/4	1 3/4	1 3/4		
Spacing of Cleats ...	24"	24"	24"	24"	24"	22"	22"	26"		
Number of Tarpaulins ...	2	2	2	2	2	2	2	2		

Particulars of fiddle, funnel and ventilator coamings:—

Fidley gratings protected by hinged steel covers
Funnel & Vents are in efficient condition.
E.R. Skylight strongly constructed of steel.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

Entrance to Crews Quarters on Upper Dk amidships
opening 1' 11" x 5' 4 1/2" Side 12"
Door. Seal 1 1/4" framed.

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

Upper Deck to Holds 12" diam 3' 6" high.
Bridge " " Crew Space 6 1/2" " 7' 6" " well stayed to Boat Dk.
Quarter " " Holds 12" " 3' 6" " Vents are well constructed in accordance with requirements
Wood Plugs & Canvas Covers are on board.

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

Fore Dk to Fore Peak 2 1/2" diam. 7 1/2" to mouth.
Upper Dk & Quarter Dk to D.B. tanks 4" diam 2' 6" high.
Air pipes have wood plugs attached

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes — Weather deck scuppers all thro gunwale bar.

3 Scuppers in Upper Deck where shown led to E.R. & B.R. Bilges
The two scuppers in the Bunkers are closed inboard with cement.
Sanitary discharges are all iron pipe and fitted with efficient storm valves.

Particulars of Side Scuttles:

In crew spaces. 8" diam and fitted with hinged deadlights.

Particulars of Guard Rails:—

Forecastle Dk. 3' 1" high Stanchions 4' 0" apart 2 Rails.
Upper Dk Bulwark 3' 10" " Stays 7" B.P. 6' 9" " Rail 6" x 3" B.A.
Quarter " " 3' 9" " 7" B.P. 6' 9" " " 6" x 3" B.A.

Particulars of Gangways, Lifelines, etc.:—

None.
Suitable provision made for rigging lifelines available for use in any part of the ship which might have to be used by the crew in the regular working of the ship.

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	91.39	3' 9"	3' 0" x 1' 6"	3	13.5	18 1/4
Forward Well	73.41	3' 10"	3' 3" x 1' 6"	3	14.62	14 3/4

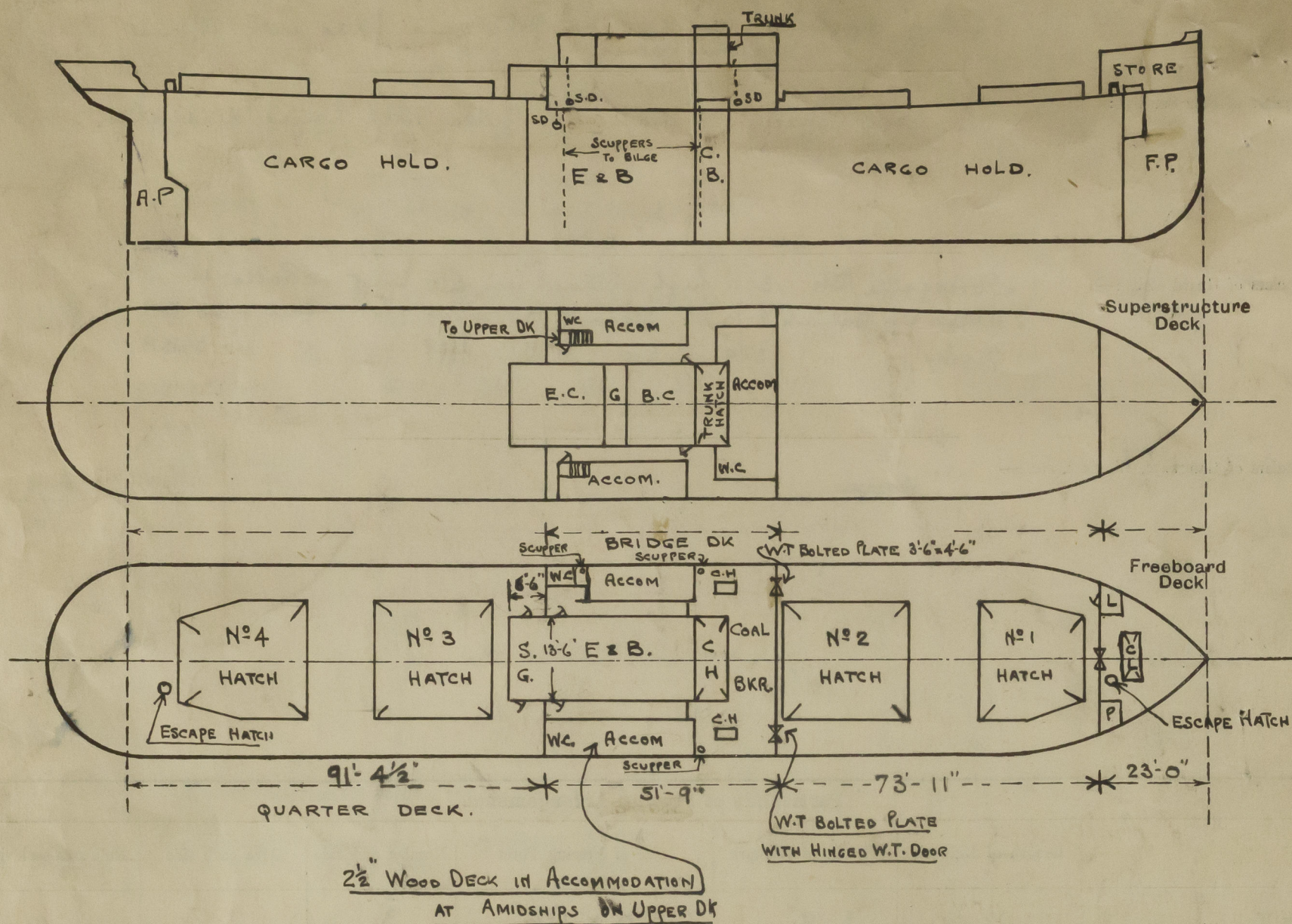
State position of each freeing port ... After Well:— From Bridge 7' 6", 29' 9", 57' 0"
(F. and A. position and height above deck edge) Forward Well:— 5' 3", 28' 0", 52' 6"
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 2 with Hinged Shutters } in each Well.
1 " 3 Rods

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	30	30	3 x 3 x 4.0	2' 9"	✓	2' 0" x 3' 8"	18"	5' 6"
Bridge, Forward Bulkhead	44	40	6" x 3" B.A.	2' 6"	Bkts.	2' 5" x 4' 0"	16"	7' 0"
Forecastle Bulkhead	30	28	2 1/2 x 2 1/2 x 4.0	2' 11"	✓	3' 6" x 4' 5"	18"	7' 0"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	40	40	3" PLATE FLANGE	2' 9"	✓	1' 11" x 4' 6"	18"	7' 0"
Exposed Machinery Casings on Superstructure Decks	40	40	2. 2.	2' 9"	Bkts. top.	2' 0" x 5' 0"	18"	7' 0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

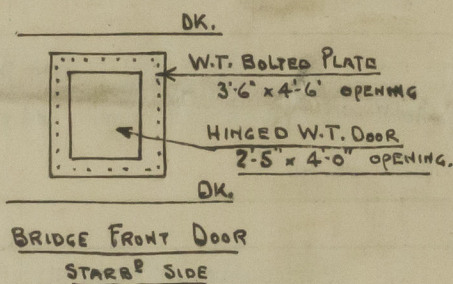
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	Hinged Steel door operated both sides
Bridge, Forward Bulkhead	W.T. Bolted Plate P.S. with bolts 5 1/2" Co. STAB SIDE OPENING IN BOLTED PLATE WITH Hinged Steel W.T. Door secured by 8 Wedge Clips
Forecastle Bulkhead	Opening fitted with full height riv. channels but opening partly closed by wood boards 1" thick and wood door 1" thick fitted 1" wide not considered efficient and located, therefore, as being open
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged steel doors operated both sides
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors operated both sides
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:—



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



VESSEL WAS SURVEYED IN DRY DOCK
WHILE UNDERGOING DAMAGE REPAIRS
ONLY.

Builder's name and yard number DUBLIN DOCKYARD Co. LTD. DUBLIN Nº 92.

Names of sister ships

Owners E.T. LINDLEY.

Fee £ 9 : 7 : 0 / Received by me