

21 DEC 1932

SURVEYS FOR FREEBOARD.

u/s NWC 12/10 dkg. g.e. 14774

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <i>Middlesbrough.</i>	
having <i>RAISED QUARTER DECK, BRIDGE & FORECASTLE</i>					Date of Survey <i>Dec. 19th 32.</i>	
(Type of Superstructures.) <i>1930</i>					Name of Surveyor <i>Cyril B. Seaver.</i>	
Ship's Name <i>3/5 BRIGHTSIDE.</i>		Nationality and Port of Official Number <i>BRITISH LIVERPOOL Middlesbrough Dundee</i>	Gross Tonnage <i>476</i>	Date of Build <i>1903-8 1930</i>	Particulars of Classification <i>100. A.1.</i>	
Moulded Dimensions: Length <i>142.00</i> Breadth <i>25.00</i> Depth <i>12.7 = 12.58</i>					Survey Held Afloat.	
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>803</i> tons						
Coefficient of fineness for use with Tables <i>.741</i>						
Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth <i>12.58</i>			(a) Where D is greater than Table depth (D - Table depth) R = <i>(12.61 - 9.47) 1.092 = 3.43</i>		Moulded Breadth (B) <i>25.0</i>	
Stringer plate <i>.03</i>			(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50} = 6.00$	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$			If restricted by superstructures		Ship's Round of Beam <i>6 7/8" = 6.25</i>	
Depth for Freeboard (D) = <i>12.61</i>					Difference	
					Restricted to	
					Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.25}{4} (.2346) = .01$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure <i>6.00</i>
" overhang						" " R.Q.D. <i>3.28</i>
R.Q.D. enclosed	<i>79.37</i>	<i>79.37</i>	<i>4.0</i>		<i>79.37</i>	Deduction for complete superstructure <i>20.20</i>
" overhang						Percentage covered $\frac{S}{L} = 76.54$ ✓
Bridge enclosed	<i>8.75</i>	<i>8.75</i>	<i>7.0</i>		<i>8.75</i>	" " $\frac{S_1}{L} = 76.54$ ✓
" overhang aft						" " $\frac{E}{L} = 76.54$ ✓
" overhang forward	<i>20.56</i>	<i>20.56</i>	<i>7.0</i>		<i>20.56</i>	Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle. enclosed	<i>22.50</i>	<i>20.56</i>	<i>7.0</i>		<i>20.56</i>	Percentage from Table, Line B. <i>71.04</i> (corrected for absence of forecastle (if required))
" overhang						Interpolation for bridge less than 2L (if required)
Trunk aft						Deduction = <i>14.35</i> ✓
" forward						
Tonnage opening aft						
" " forward						
Total	<i>108.68</i>	<i>108.68</i>			<i>108.68</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	<i>24.20</i>	1		<i>24.20</i>	<i>16.50</i>	<i>18.64</i>	1		<i>25.14</i>	Mean actual sheer aft = <i>Deficient</i>
1/4 L from A.P.	<i>10.77</i>	4		<i>43.08</i>	<i>7.32</i>	<i>2.00</i>	4		<i>40.80</i>	Mean actual sheer forward = <i>Deficient</i>
3/4 L "	<i>2.66</i>	2		<i>5.32</i>	<i>1.83</i>	<i>-2.50</i>	2		<i>5.10</i>	Mean standard sheer forward
Amidships		4			<i>.00</i>		4			Length of enclosed superstructure forward of amidships =
3/4 L from F.P.	<i>5.32</i>	2		<i>10.64</i>	<i>4.16</i>	<i>6.40</i>	2		<i>12.80</i>	" " aft of " = <i>.50</i>
1/4 L "	<i>21.54</i>	4		<i>86.16</i>	<i>16.64</i>	<i>18.60</i>	4		<i>74.40</i>	
F.P.	<i>48.40</i>	1		<i>48.40</i>	<i>37.50</i>	<i>37.50</i>	1		<i>37.50</i>	
Total				<i>217.80</i>					<i>195.74</i>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{217.80 - 195.74}{18} \left(.75 - \frac{.3673}{2} \right) = .45$										
If limited on account of midship superstructure,										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)	
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<i>14.46</i>
Depth to Freeboard Deck = <i>16.61</i> Ft.	$\Delta =$		<i>15.11</i>
Summer freeboard = <i>4.40</i>	Tons per inch immersion at summer load water line	Depth Correction	<i>3.43</i>
Moulded draught (d) = <i>12.21</i>	T =	Deduction for superstructures	<i>14.35</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>3"</i>	Deduction = $\frac{\Delta}{40T}$ inches = <i>3"</i>	Sheer correction	<i>.45</i>
Addition for Winter North Atlantic Freeboard (if required) = <i>2"</i>		Round of Beam correction	<i>.01</i>
		Correction for Thickness of Deck amidships	<i>48.00</i>
		Other corrections, scantlings, etc.	<i>51.88</i>
		Summer Freeboard = <i>52</i>	

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

Tropical Fresh Water Line above Centre of Disc	<i>6</i>	Tropical Fresh Water Freeboard	<i>4 - 4 3/4</i>
Fresh Water Line " "	<i>3</i>	Fresh Water " "	<i>3 - 1 3/4</i>
Tropical Line " "	<i>3</i>	Tropical " "	<i>4 - 1 3/4</i>
Winter Line below " "	<i>3</i>	Winter " "	<i>4 - 1 3/4</i>
Winter North Atlantic Line " "	<i>5</i>	Winter North Atlantic " "	<i>4 - 9 3/4</i>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		No. 1 Upper Deck	No. 2 Raised Deck						
Dimensions of Hatchway		24' x 14'	21' x 14'						
COAMINGS	Height above Deck	3'-6"	3'-0"						
	Thickness	44'	44'						
	Stiffeners	7 x 3 x 35	7 x 3 x 35						
	Brackets, Stays	7 x 2 off	7 x 2 off						
HATCH BEAMS	Number	4	4						
	Spacing	15'-35"	15'-35"						
	Scantling and Sketch	3 x 3 x 42	3 x 3 x 42						
	Bearing Surface	3"	3"						
FORE AND AFTERS	Number	✓	✓						
	Spacing	✓	✓						
	Unsupported Lengths	✓	✓						
	Scantling* and Sketch	✓	✓						
HATCH COVERS	Material	W.P.	W.P.						
	Thickness	2 1/2"	2 1/2"						
	How fitted	Sole 10	Sole 10						
	Bearing Surface	3"	3"						
Spacing of Cleats		22'-37'	23'-37'						
Number of Tarpaulins		2	2						
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Yes</i></p>									

Particulars of fiddle, funnel and ventilator coamings:—
Stokehold gratings covered by strong steel hinged covers.
Fiddle and funnel ventilators in efficient condition.
Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—
One scuttle on Quarter deck Port Side of Cast Steel fitted with bayonet joint, with patting under but no chain attachment.

Particulars of Companionways:—

✓

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
1 Ventilator on upper deck forward 11" dia Coaming 30 x 30 tied to hold
1 " " Raised Quarter deck. 11" " 30 x 30 "
all Ventilators constructed in accordance with rules and coamings closed with wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
1 C.I. air pipe on Forecastle deck to fore peak 8" high 2 1/2" dia
after peak air pipe flush with deck with brass screw cap.
No closing appliances fitted.

Particulars of Gangway Cargo and Coaling Ports:—

None fitted

Particulars of Scuppers and Sanitary Discharge Pipes:—

Sanitary discharge pipes fitted with non-return valve on ship's side and an efficient trap on inner end.

Particulars of Side Scuttles:—

Side scuttles in Bridge & Forecastle fitted with hinged deadlights.

All scuttles of Substantial construction.

Particulars of Guard Rails:—

Guard rails on Fore deck Stanchions 3'-1" high spaced 4'-1" apart with 2 chains
Rail Bulwark on upper deck in well fwd 47" high efficiently constructed & supported.

Bridge deck. 36
Raised Quarter deck 36 1/2

Particulars of Gangways, Lifelines, etc.:—

~~None fitted~~

Decatable provision made for rigging lifelines 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 ...	79.37 ✓	3.0 1/2	30 1/2" x 16"	4	13.48	15.87
Forward Well ...	31.38 ✓	3'-11"	30 1/2" x 16"	3	10.11	9.83
State position of each freeing port ... (F. and A. position and height above deck edge) } After Well:— B.E. 5'-10", 8'-8", 7'-5", 14'-0". Forward Well:— B.F. 1'-2", 9'-0", 8'-0", 10" above deck State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— hinged 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 ...	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	30	30	{ COULD NOT BE OBTAINED 4 1/2 x 3 x 34	36	BRACKETS T.B.	✓	✓	
Bridge, Forward Bulkhead ...	34 x 40	30		31	BRACKETS T.B.	✓	✓	
Forecastle Bulkhead ...	44 x 35	30	4 x 3 x 30	24	✓	58 x 24	15	
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Fore- board or Raised Quarter Decks ...	15 x 30	25	3 x 2 1/2 x 25	22	BRACKETS IN T.	58 x 24	13	6'-6"
Exposed Machinery Casings on Super- structure Decks ...								
Machinery Casings within Superstruc- tures 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 ...	No openings.
Bridge, Forward Bulkhead ...	No openings.
Forecastle Bulkhead ...	2. Steel hinged doors operated from both sides.
Exposed Machinery Casings on Fore- board or Raised Quarter Decks ...	2. Steel doors P & S. to Stoke hold & Engine room operated from both sides.
Exposed Machinery Casings on Super- structure Decks ...	✓
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓

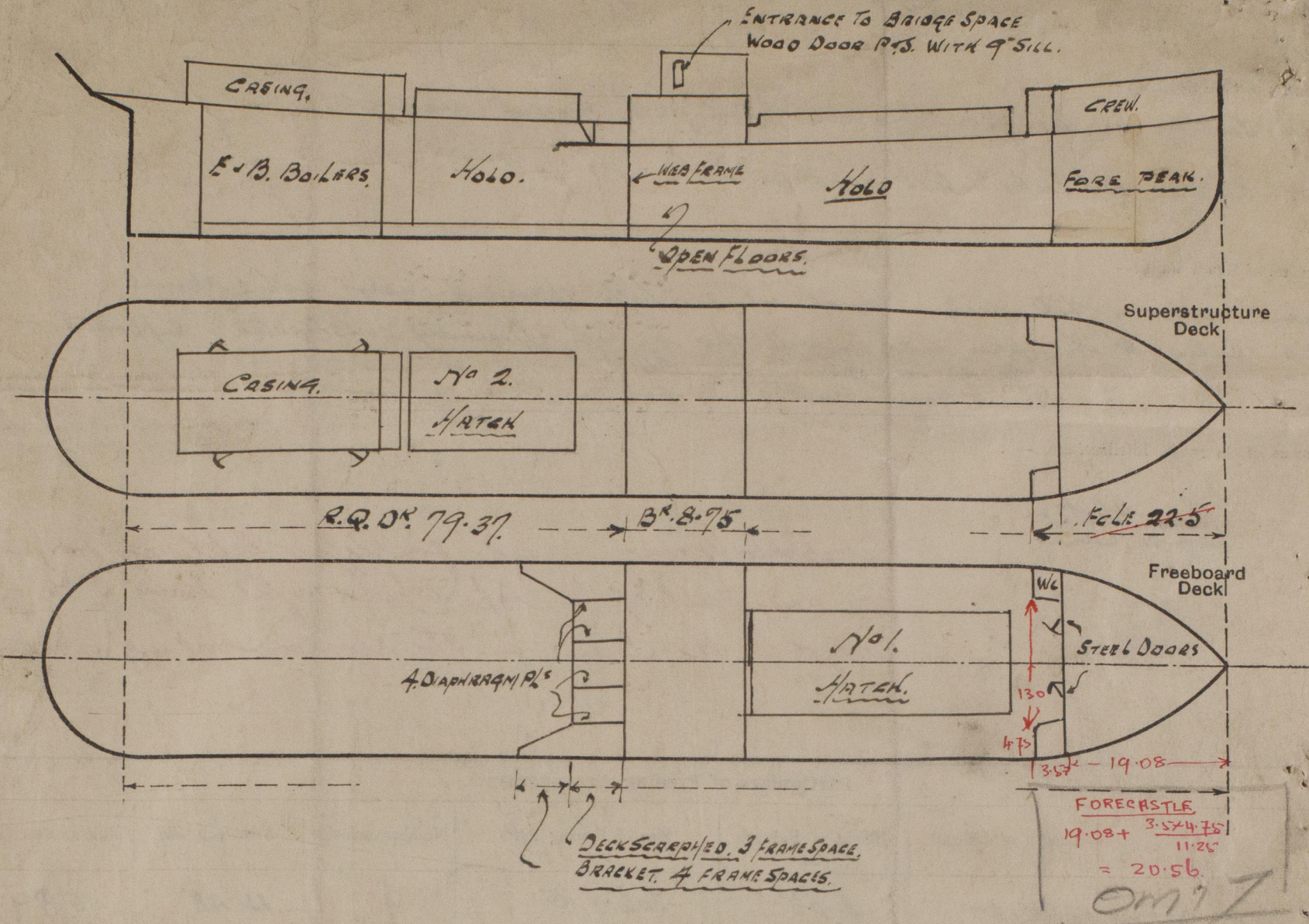


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Lloyd's Register
Foundation

Brightside

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:—

Survey held afloat and confined to obtaining the above particulars
Hatch cleats in mds of both hatches spaced 37\" apart.

OM 17

Builder's name and yard number *Abdela - Mitchell Queensferry*

Names of sister ships

Owners *L. Knopp (J. W. Harvie) TH Bankin (Lonsdale)*

Fee £ *5* : *2* :

Received by me