

B.T. CO 8/6/32

Newcastle-on-Tyne No 88177

8 MAR 1932

31929

Rpt. C.11.

Index. No.
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Newcastle</u>
having <u>Poop, Bridge and Forecastle disconnected</u>					Date of Survey <u>2nd Mar. 1932</u>
(Type of Superstructures.)					Name of Surveyor <u>A. Urwin</u>
Ship's Name <u>S.S. DEMETERTON</u>	Nationality and Port of Registry <u>British Newcastle</u>	Official Number <u>149406</u>	Gross Tonnage <u>5251</u>	Date of Build <u>1926-2</u>	Particulars of Classification <u>*100A1</u>
Moulded Dimensions: Length <u>397.25</u> Breadth <u>53.75</u> Depth <u>31.50</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>12616</u> tons					
Coefficient of fineness for use with Tables <u>.773</u>					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>31.50</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(31.54 - 26.48) 3</u>	Moulded Breadth (B) <u>53.75</u>
Stringer plate <u>.04</u>	= <u>15.18</u>	Standard Round of Beam = $\frac{B \times 12}{50}$ = <u>12.90</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam = <u>13.12</u>
Depth for Freeboard (D) = <u>31.54</u>	If restricted by superstructures <u>✓</u>	Difference <u>.06</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$ = <u>.015 + 52 = .01</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>32.25</u>	<u>32.25</u>	<u>8.0</u>		<u>32.25</u>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	<u>112.75</u>	<u>112.75</u>	<u>8.0</u>		<u>112.75</u>
" overhang aft	<u>6.0</u>	<u>4.5</u>			<u>4.5</u>
" overhang forward	<u>3.0</u>	<u>1.5</u>			<u>1.5</u>
Fore enclosed	<u>37.75</u>	<u>37.75</u>	<u>8.25</u>		<u>37.75</u>
" overhang	<u>.75</u>	<u>.37</u>			<u>.37</u>
Trunk aft <u>Weathering</u>	<u>3.00</u>	<u>.93</u>			<u>.93</u>
" forward					
Tonnage opening aft					
" forward					
Total	<u>195.50</u>	<u>195.50</u>			<u>190.05</u>

Standard Height of Superstructure <u>7.47</u>
" " R.Q.D. <u>✓</u>
Deduction for complete superstructure <u>41.82</u>
Percentage covered $\frac{S}{L} = \frac{195.5}{397.25} = 49.22$
" $\frac{S_1}{L} = \frac{195.5}{397.25} = 49.22$
" $\frac{E}{L} = \frac{190.05}{397.25} = 47.83$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. <u>54.16</u>
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = <u>41.82 + 34.16 = 75.98</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>49.725</u>	<u>1</u>		<u>49.73</u>	<u>66.0</u>	<u>66.0</u>	<u>1</u>		<u>66.0</u>
$\frac{1}{4}$ L from A.P.	<u>22.13</u>	<u>4</u>		<u>88.52</u>	<u>26.0</u>	<u>26.46</u>	<u>4</u>		<u>105.84</u>
$\frac{1}{2}$ L "	<u>5.47</u>	<u>2</u>		<u>10.94</u>	<u>6.5</u>	<u>6.61</u>	<u>2</u>		<u>13.22</u>
Amidships		<u>4</u>			<u>0</u>		<u>4</u>		
$\frac{3}{4}$ L from F.P.	<u>10.94</u>	<u>2</u>		<u>21.88</u>	<u>13.0</u>	<u>13.33</u>	<u>2</u>		<u>26.66</u>
$\frac{1}{4}$ L "	<u>44.26</u>	<u>4</u>		<u>177.04</u>	<u>52.0</u>	<u>53.32</u>	<u>4</u>		<u>213.28</u>
F.P.	<u>99.45</u>	<u>1</u>		<u>99.45</u>	<u>120.0</u>	<u>120.0</u>	<u>1</u>		<u>120.0</u>
Total				<u>447.56</u>					<u>534.98</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{87.42}{18} \left(.75 - \frac{195.50}{794.5} \right) = 3.41 (.75 - .246) = 2.92$

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.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 31-6 $\frac{1}{2}$ Ft.
Summer freeboard = 6-1 $\frac{1}{4}$
Moulded draught (d) = 25-4 $\frac{3}{4}$

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.35
6 $\frac{1}{4}$

Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 11940$

Tons per inch immersion at summer load water line

T = 42.0

Deduction = $\frac{\Delta}{40T}$ inches

= 7.11

7"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	<u>15.18</u>	
Deduction for superstructures		<u>14.29</u>
Sheer correction		<u>2.92</u>
Round of Beam correction		<u>.01</u>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	<u>15.18</u>	<u>17.82</u>

Summer Freeboard = 73.63

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

Tropical Fresh Water Line above Centre of Disc	<u>13$\frac{1}{4}$</u>
Fresh Water Line " "	<u>7$\frac{1}{4}$</u>
Tropical Line " "	<u>6$\frac{1}{4}$</u>
Winter Line below " "	<u>5$\frac{1}{2}$</u>
Winter North Atlantic Line " "	<u>6$\frac{1}{4}$</u>

Tropical Fresh Water Freeboard	<u>5-0$\frac{1}{2}$</u>
Fresh Water " "	<u>5-6$\frac{1}{4}$</u>
Tropical " "	<u>5-7$\frac{1}{4}$</u>
Winter " "	<u>6-8$\frac{1}{4}$</u>
Winter North Atlantic " "	<u>6-8$\frac{1}{4}$</u>


Demeterion


Particulars of fiddley, funnel and ventilator coverings:—
 Stretched gratings covered by strong steel hinged covers. Fiddley, funnel and ventilators in efficient condition. Engine skylight of steel strongly constructed.

None

None


[illegible]

1. C.I. air pipe on freestone deck $3' 10" \times 12" \times 3'$ down to fore peak  Means of closing - canvas covers

7. " " " freestone " $3' 10" \times 12" \times 3'$ " to d. b. tanks 

A. " " " bridge " $3' 10" \times 12" \times 3'$ " " " "

2. " " " Post " $3' 10" \times 13" \times 2\frac{1}{2}'$ " to after peak

1. bridge deck " using casing $3' 10" \times 12" \times 3'$ down to d. b. tanks  with non-degradable screw-pile

None

Particulars of Side Scuttles:

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Leptocaris are provided in the wells on both sides of the ship.

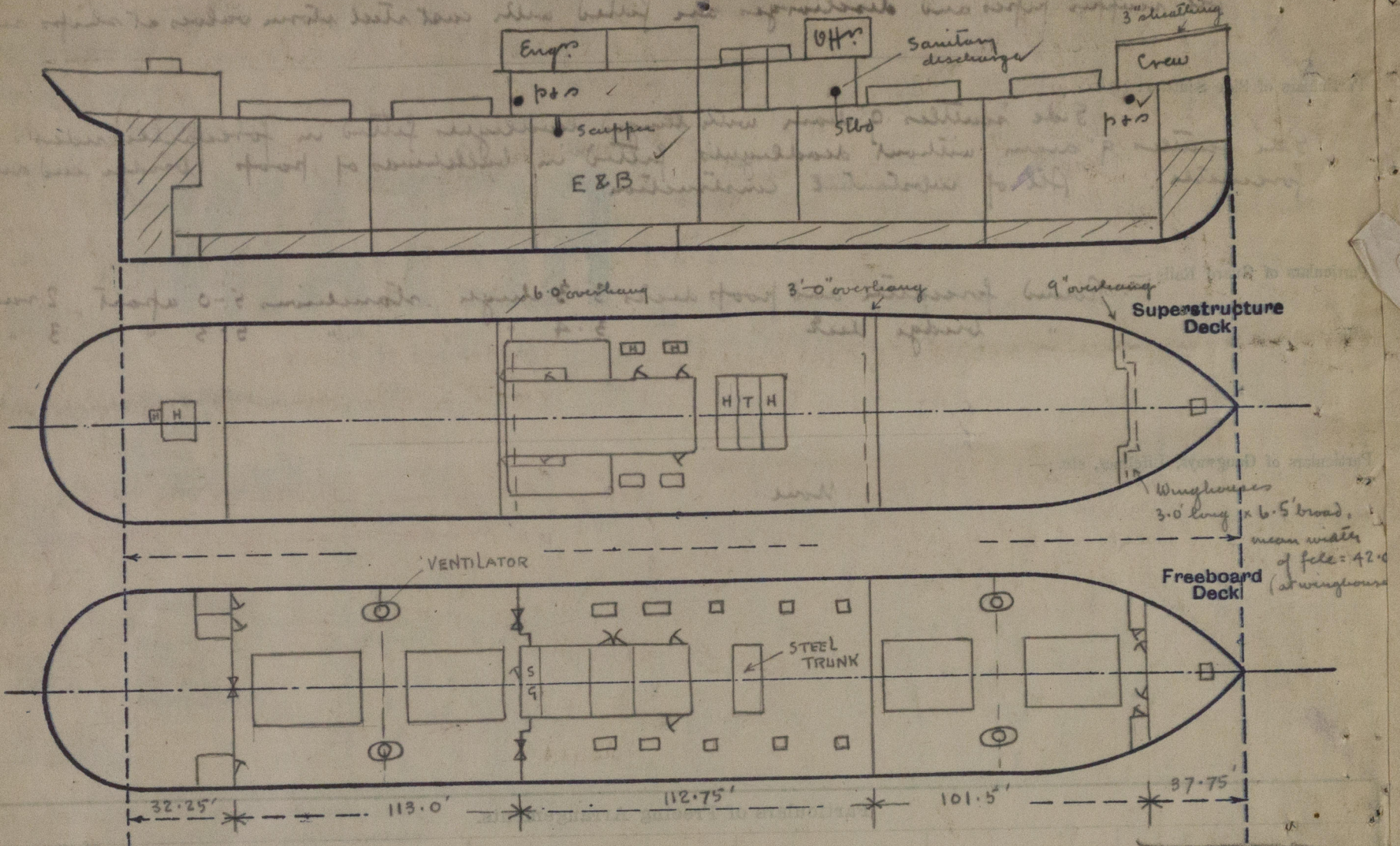
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.44 ✓	.38 ✓	6 × 3 × .40 ✓	30"	Lugs ✓	1. 4'-6" × 4'-6" 3. 24" × 4'-6"	18" 18" ✓	✓
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.26	.26	3½ × 3 × .40 ✓	(40")	None ✓	2. 36" wide × 4'-6" 1. 23" " × 4'-6"	20" 17" ✓	✓
Bridge, Forward Bulkhead ... ..	.44 ✓	.40	9 × 3½ × .50 ✓	30"	Lugs	None ✓	✓	✓
Forecastle Bulkhead ... ..	.26 ✓	.26	3 × 3 × .30	48"	None	2. 21" × 4'-3"	20" ✓	✓
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super-structure Decks ... ..	.44 ✓	.40	3½ × 3 × .40	36"	None	3. 24" × 4'-6"	18" ✓	7'-9"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.38 ✓	.26	"	"	"	2. 51" × 4'-8" 2. 24" × 4'-6"	18" ✓ 17" ✓	8'-0"
Deckhouses on Flush Deck Ships ...	✓							

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

Poop Bulkhead	...	...	2 1/2" storm boards fitted full depth in riveted channels. 3 steel hinged doors operated from both sides	2
Raised Quarter Deck Bulkhead	...	...	2 1/2" storm boards fitted full depth in riveted channels. 1 steel hinged door operated from both sides	2
Bridge, After Bulkhead	...	...	Intact bulkhead	
Bridge, Forward Bulkhead	...	...
Forecastle Bulkhead	...	...	1 3/4" solid oak door, hinged and operated from both sides	2
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...
Exposed Machinery Casings on Superstructure Decks	...	...	Strong steel hinged doors operated from both sides	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	Strong steel hinged doors, permanently attached and capable of being manually closed.	
Deckhouses on Flush Deck Ships	...	...

Premerton

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:—



Timber deck cargo assignment not required

File side notices
Eqm. length
 $\frac{376.5-2}{42} = 9.3$

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

OUT

Builder's name and yard number Wm. Shaw Bros. Ltd.

Names of sister ships _____

Owners Wm. Carlisle S.S. Co. Ltd. (R. Chapman & Sons, Mgrs)

Fee £ 13.12.0 Received by me _____