

Ref. 28194

Rpt. C.11.

Newcastle-on-Tyne No. 88796. 28 JUN 1932

Index. No. 28523
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having ~~Discontinuous sections~~ *Prop Bridge and* *Newcastle*

Port of Survey *Newcastle-on-Tyne*

Date of Survey *27th June 1932.*

Name of Surveyor *J. Macdonald.*

Particulars of Classification *100A1*

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"TIBERTON"	<i>British Newcastle</i>	<i>142861</i>	<i>5225</i>	<i>1920</i>

Moulded Dimensions: Length *399.7* Breadth *52.0* Depth *31.0* tons

Moulded displacement at moulded draught = 85 per cent. of moulded depth *1270*

Coefficient of fineness for use with Tables *778*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>31.00</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(31.04 - 26.65) 3 = + 13.17</i>	Moulded Breadth (B) <i>52.00</i>
Stringer plate ... <i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{12.48}{50}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = $\frac{1.1}{50}$
Depth for Freeboard (D) = <i>31.04</i>		Difference = $\frac{.52}{50}$
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.52}{4} \left(1 - \frac{.5041}{1} \right) = -.06$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>48.83</i>	<i>48.83</i>	<i>7'-11 1/2"</i>		<i>48.83</i>
" overhang	<i>5</i>	<i>.21</i>			<i>.21</i>
R.Q.D. enclosed	<i>110.61</i>	<i>110.61</i>	<i>7'-11 1/2"</i>		<i>110.61</i>
" overhang	<i>112.2</i>	<i>1.73</i>			<i>1.73</i>
Bridge enclosed	<i>23.5</i>	<i>1.3</i>			<i>1.3</i>
" overhang aft	<i>25.8</i>				
" overhang forward	<i>39.0</i>	<i>39.00</i>	<i>7'-11 1/2"</i>		<i>39.00</i>
Table enclosed	<i>1.0</i>	<i>.98</i>			<i>.98</i>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>202.42</i>	<i>201.49</i>			<i>201.49</i>

Standard Height of Superstructure *7.50*

" " R.Q.D. *41.98*

Deduction for complete superstructure *41.98*

Percentage covered $\frac{S}{L} = \frac{50.65}{50}$

" " $\frac{S_1}{L} = \frac{50.41}{50}$

" " $\frac{E}{L} = \frac{50.41}{50}$

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

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) *36.41*

Interpolation for bridge less than 2L (if required)

Deduction = $41.98 + 36.41 = 78.39$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	49.97	1		49.97	59.5	59.50	1		59.50
$\frac{1}{4}$ L from A.P. ...	22.24	4		88.96	18.96	26.80	4		107.20
$\frac{3}{8}$ L " ...	5.50	2		11.00	4.73	6.70	2		13.40
Amidships ...		4			0		4		
$\frac{3}{4}$ L from F.P. ...	10.99	2		21.98	6.65	13.30	2		26.60
$\frac{1}{8}$ L " ...	44.48	4		177.92	26.67	53.30	4		213.20
F.P.	99.94	1		99.94	120.0	120.00	1		120.00
Total ...				449.77					539.90

Mean actual sheer aft = *Excess*

Mean standard sheer aft

Mean actual sheer forward = *Excess*

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = *.15*

" " aft of " = *.13*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{90.13}{18} \left(.75 - \frac{.2532}{1} \right) = -2.49$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *31.04* Ft.
Summer freeboard = *6.00*
Moulded draught (d) = *25.04*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{25.04}{4} = 6.26 = 6 \frac{1}{4}$
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 11600$

Tons per inch immersion at summer load water line

$T = 41.5$

Deduction = $\frac{\Delta}{40 T}$ inches
 $= \frac{11600}{40 \times 41.5} = 6.98 = 7$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{778 + 68}{1.36} = \frac{1.458}{1.36}$

Depth Correction ... *13.17*

Deduction for superstructures ... *15.28*

Sheer correction ... *2.49*

Round of Beam correction ... *.06*

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

	+	-
Depth Correction	<i>13.17</i>	
Deduction for superstructures		<i>15.28</i>
Sheer correction		<i>2.49</i>
Round of Beam correction		<i>.06</i>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
Summer Freeboard	<i>13.17</i>	<i>17.83</i>
		<i>- 4.66</i>
		<i>71.90</i>

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

Tropical Fresh Water Line above Centre of Disc *13.4*

Fresh Water Line " " *7*

Tropical Line " " *6 1/4*

Winter Line below " " *6 1/4*

Winter North Atlantic Line " " *6 1/4*

Tropical Fresh Water Freeboard ... *6.0*

Fresh Water " " *4-10 3/4*

Tropical " " *3.5*

Winter " " *5.5*

Winter North Atlantic " " *6-6 1/4*

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Foundation

Tiberton

Particulars of Scupperns and Sanitary Discharge Pipes —

1	Sanitary pipes from Officers' and Crew spaces discharge above upper deck with malleable C. I. storm valves.
2	Scupper " forepart of " discharge below upper deck with malleable C. I. storm valves.
3	" " U. O. K. in wells and 2" pipes from bridge & poop spaces discharge just below upper deck without storm valves.

Particulars of Side Scuttles: Side scuttles to crew spaces in poop fitted with hinged deadlights.
All scuttles of substantial construction.

Particulars of Guard Rails:— On poop forecastle deck 3'-3" high with 2 rods & standions spaced 5'-0" apart.
On bridge " 3'-3" " " " " " " 4'-6" "

nd between hoof

Type Poop, Bridge and F

PART

side	Area each side	Rule area each side
	19 1/4 f	19.769
	19 1/4 f	19.8 f

and 20' - 6" between each post.

" 19' - 0" " " "

and 20'-6" between each port
" 19'-0" " " "

Size of Openings	Height of Sills	Height of Casings
2 @ 5'-0" x 3'-0"	23"	7'-11 1/2"
2 @ 5'-0" x 3'-0"	24"	7'-11 1/2"
4'-11" x 3'-0"	27"	7'-11 1/2"
4'-0" x 3'-0"	24"	7'-11 1/2"
4'-4" x 2'-0"	19"	7'-7 1/2"
4'-4" x 2'-0"	20"	7'-11 1/2"
2'-6" x 1'-8"		

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	...	...	2½" wood shifting boards in permanent channels, full height.
Raised Quarter Deck Bulkhead	...	...
Bridge, After Bulkhead	...	...	3" wood shifting boards in permanent channels, full height & steel hinged door operated from both sides.
Bridge, Forward Bulkhead	...	...	Steel hinged weathertight door operated from outside.
Forecastle Bulkhead	...	...	3" wood shifting boards in permanent channels, full height.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...
Exposed Machinery Casings on Superstructure Decks	...	...	Steel hinged doors, operated from both sides. Locks require to be overhauled.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel hinged doors, operated from inside & one steel vertical sliding door.
Deckhouses on Flush Deck Ships	

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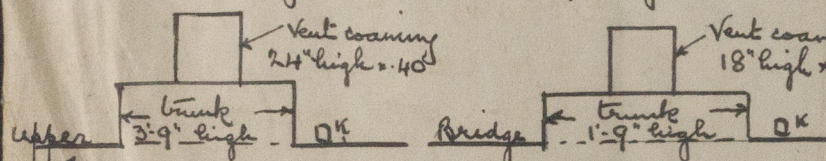
sliding door

Tiberton

Particulars of fiddle, funnel and ventilator coamings:— Stokehold
~~is worn and is being renewed~~ Fire
Engine skylight of steel, strongly co

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:— One steel deckhouse
4'-4" high x 22", sill 19" high, doors



Particulars of Ventilators in exposed positions on freeboard and superstructure
 - Upper deck: - one @ 9" dia - coaming 24" x 30" L
 - Upper " - 12 @ 20" " " as per sheet

bridge	-	6 @ 18"	drivick posts to bunkers
"	-	2 @ 2 1/2"	coaming 36" x 40 to cargo hold.
post	-	2 @ 22"	" 2 1/4" x 3 1/2 to tunnel forew spools
	-	5 @ 12"	" 1 1/2" x 2 1/4 to stove to inside post
	-	4 @ 6"	

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

the <u>keel</u> OR :-	one iron pipe	2 1/2" high	x 1 1/2" dia.	from fore peak tank
<u>upper</u> in wells :-	4 iron pipes	3" high	x 2" dia.	double bottom "
<u>bridge</u> :-	4	7 1/2"	x 2"	"
	3	2 1/2"	x 6"	"
<u>poop</u> :-	4	8"	x 3"	to aft peak tank

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes —

1	Sanitary pipes from Officers' and Crew spaces discharge above upper deck with malleable C.I. storm valves.
2	Scupper " " for scupper discharge below upper deck with malleable C.I. storm valves.
3	U.O. in wells and 2" pipes from bridge & poop spaces discharge just below upper deck without storm valves.

Particulars of Side Scuttles: Side scuttles to crew spaces in boats fitted with hinged deadlights.
All scuttles of substantial construction.

Particulars of Guard Rails:— On poop Forecastle deck 3'-3" high with 2 rods & standions spaced 5'-0" apart.
On bridge " 3'-3" " " " " " " 4'-6" "

Particulars of Gangways, Lifelines, etc. :—

Manila lifelines fitted in after well port & starboard between poop
& bridge bulkheads

[illegible]

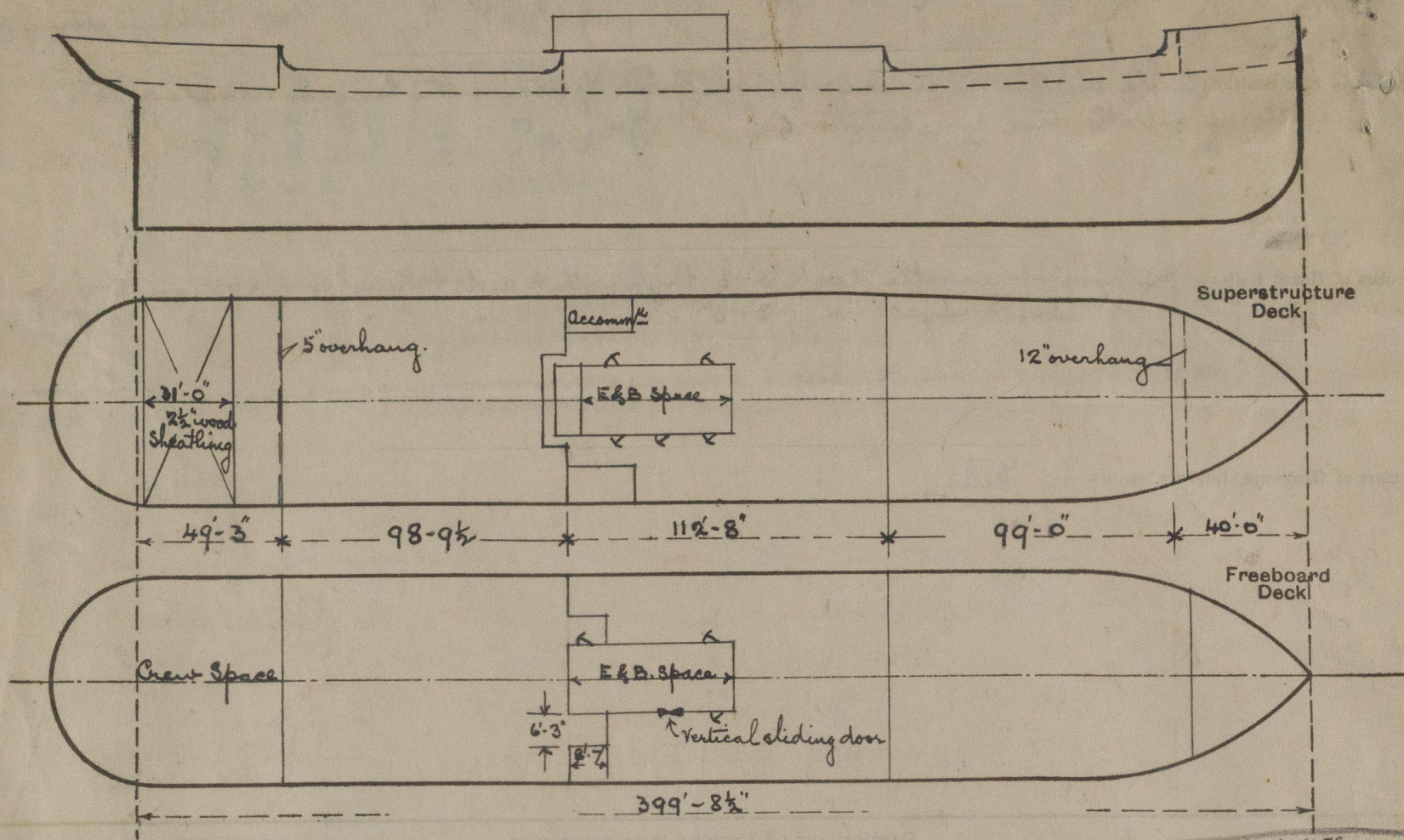
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	38	36	6 x 3½ x 38	30"	-	2 @ 5' 0" x 3' 0"	23"	7' 11½"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	25	25	3 x 3 x 28	36"	-	2 @ 5' 0" x 3' 0"	24"	7' 11½"
Bridge, Forward Bulkhead	46	44	9 x 3½ x 46	34"	brackets	4' 11" x 3' 0"	27"	7' 11½"
Forecastle Bulkhead	25	25	3 x 3 x 28	41"	-	4' 0" x 3' 0"	24"	7' 11½"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks	38	32	3½ x 3½ x 36	31"	-	4' 4" x 2' 0"	19"	7' 7"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	38	36	3½ x 3½ x 36	31"	-	4' 4" x 2' 0" 2' 6" x 1' 8"	20"	7' 11½"
Deckhouses on Flush Deck Ships ...								

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

Pool Bulkhead	2 1/2" wood shifting boards in permanent channels, full height.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	3" wood shifting boards in permanent channels, full height. Steel hinged door operated from both sides.
Bridge, Forward Bulkhead	Steel hinged weathertight door operated from outside.
Forecastle Bulkhead	3" wood shifting boards in permanent channels, full height.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks	Steel hinged doors, operated from both sides. Locks require to be overhauled.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel hinged doors, operated from inside. One steel vertical sliding door.
Deckhouses on Flush Deck Ships ...	

Tiberton

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:—



$$\begin{aligned} 112.67 - \frac{6.25 \times 8158}{26} \\ = 112.67 - 2.06 \\ = 110.61 \end{aligned}$$

$$\begin{aligned} 2.06 \\ \times 25 \\ \hline 51.5 \\ 110.61 \end{aligned}$$

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

The S.S. N^o 3 is now well advanced & expected to be completed shortly.
 Light weight as per deadweight table on board ship = 3270 tons at 8'-1 3/4" draught.
 Deadweight at 24'-0" draught = 7610 tons.
 " " 25'-0" " = 8110 "
 " " 25'-2 3/4" " = 8200 " = Summer load line.

Builder's name and yard number. *Richardson Duck & Co. Ltd*

Names of sister ships.

Owners *P. Chapman & Son*

Fee £ *13 : 12 : 0* Received by me