

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Computation of Freeboard for Steamer, ~~Building Ship~~, Tanker
having *Roof Bridge & Forecastle*Port of Survey *Falmouth*Date of Survey *23. 5. 32*Name of Surveyor *Archie Murray*Particulars of Classification **100 A1.*

Ship's Name

(Type of Superstructures.)

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

BRITISH COMMERCE*British*
*London**146615**4208**1922*
*Feb.*Moulded Dimensions: Length *350' 0"* Breadth *49' 0"* Depth *27' 0"*Moulded displacement at moulded draught = 85 per cent. of moulded depth *8865* tonsCoefficient of fineness for use with Tables *.788**Carrying Petroleum in bulk.*
Filled for oil fuel 8.2.32

Depth for Freeboard (D)

Moulded depth *27' 0"*Stringer plate *.08*

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = *27' 05"*

Depth correction

(a) Where D is greater than Table depth

$$(D - \text{Table depth}) R = (27.05 - 23.33) 2.692$$

$$= 3.72 \times 2.692 = +10.01$$

(b) Where D is less than Table depth (if allowed)

$$(\text{Table depth} - D) R =$$

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) *49.0*

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 11.76$$

$$\text{Ship's Round of Beam} = 12$$

$$\text{Difference} \text{ Excess} = .24$$

Restricted to ☒

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.24}{4} \left(1 - \frac{.512}{49} \right) = -.03$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>82.75</i>	<i>82.75</i>	<i>7.5</i>		<i>82.75</i>
" overhang ...	<i>✓</i>				
R.Q.D. enclosed ...	<i>✓</i>				
" overhang ...	<i>✓</i>				
Bridge enclosed...	<i>30.34</i>	<i>30.34</i>	<i>8.0</i>		<i>30.34</i>
" overhang aft ...	<i>4.66</i>	<i>3.49</i>			<i>3.49</i>
" overhang forward	<i>4.66</i>	<i>2.33</i>			<i>2.33</i>
F'cle enclosed <i>square</i> ...	<i>57.25</i>	<i>46.36</i>	<i>8.0</i>		<i>46.36</i>
" overhang ...	<i>5.44</i>	<i>5.44</i>			<i>5.44</i>
Trunk aft ...	<i>✓</i>				
" forward ...	<i>✓</i>				
Tonnage opening aft ...	<i>✓</i>				
" " forward	<i>✓</i>				
Total ...	<i>179.66</i>	<i>170.71</i>			<i>170.71</i>

Standard Height of Superstructure *7.0*

" " R.Q.D. ...

Deduction for complete superstructure *38.67*Percentage covered $\frac{S}{L} = 51.33\%$ " $\frac{S_1}{L} = 48.78\%$ " $\frac{E}{L} = 48.78\%$ Percentage from Table, Line A.
(corrected for absence of forecastle (if required))Percentage from Table, Line B. *TANKER 39.78%*
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *38.67 × 39.78 = -15.38*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>45.00</i>	<i>1</i>		<i>45.00</i>	<i>49</i>	<i>48.00</i>	<i>1</i>		<i>48.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>20.03</i>	<i>4</i>		<i>80.12</i>	<i>22</i>	<i>21.13</i>	<i>4</i>		<i>84.52</i>
$\frac{3}{8}$ L " ...	<i>4.95</i>	<i>2</i>		<i>9.90</i>	<i>6</i>	<i>5.27</i>	<i>2</i>		<i>10.54</i>
Amidships ...		<i>4</i>			<i>0</i>		<i>4</i>		
$\frac{3}{8}$ L from F.P. ...	<i>9.90</i>	<i>2</i>		<i>19.80</i>	<i>12</i>	<i>10.59</i>	<i>2</i>		<i>21.18</i>
$\frac{1}{2}$ L " ...	<i>40.05</i>	<i>4</i>		<i>160.20</i>	<i>44</i>	<i>42.46</i>	<i>4</i>		<i>169.84</i>
F.P. ...	<i>90.00</i>	<i>1</i>		<i>90.00</i>	<i>96</i>	<i>96.00</i>	<i>1</i>		<i>96.00</i>
Total ...				<i>405.02</i>					<i>430.08</i>

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 =

" " aft of " = *Tanker*

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{25.06}{18} \left(.75 - \frac{.4934}{2566} \right) = -.69$$

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.

Ft.

Depth to Freeboard Deck = *27.05*Summer freeboard = *4.10*Moulded draught (d) = *22.95*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *5.74*Addition for Winter North Atlantic Freeboard (if required) = *3.2*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 8910$$

Tons per inch immersion at summer load water line

$$T = 35.0$$

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

$$= 6.36$$

6.4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{.788 + .68}{1.36} = \frac{1.468}{1.36}$$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

*51.30**55.38**10.01**15.38**69**03**10.01**16.10**- 6.09**Summer Freeboard = 49.39*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood, Steel, Deck*:

28 MAY 1932

Tropical Fresh Water Line above Centre of Disc ... *12"*Fresh Water Line " " ... *6.4"*Tropical Line " " ... *5.3"*Winter Line below " " ... *5.3"*Winter North Atlantic Line " " ... *9.4"*

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

W568-0098 1/2

RECEIVED

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JUN 1932

British Commerce

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

None.

Compartments in forecabin leading to space below foreboard deck efficiently protected by ~~solid hardwood~~ ^{steel} door at forecabin entrance, sill 10" high.

Calculations of Ventilators in exposed positions on deckboard and superstructure decks:—				
Forecastle head:	2	10"	36"	to forecastle, pump room
	3	12"	"	and hold
	20	12"	"	to pump room
Inboard sick:	2	12"	"	to pump room
Post	5	12"	"	to pump room
	2	10"	"	to pump room

All coverings provided with wood flaps and canvas covers.

Heights of Air Pipes in exposed positions on foreboard, mimed quarter , or superstructure decks :—						
<u>Forecastle Head.</u>	1	air pipe	4'	dead,	21' High from fore peak	} Heights measured to opening. All openings provided with Canvas covers.
	2	"	6"	"	19' " "	
	2	"	"	"	" "	
<u>Treboord deck</u>	2	"	"	"	36' " "	
	2	"	5'	"	28' " "	
<u>Aft</u>	4	"	2½'	18' to 24' "	" "	
	2	"	4"	"	25' " "	
	2	"	"	"	" "	

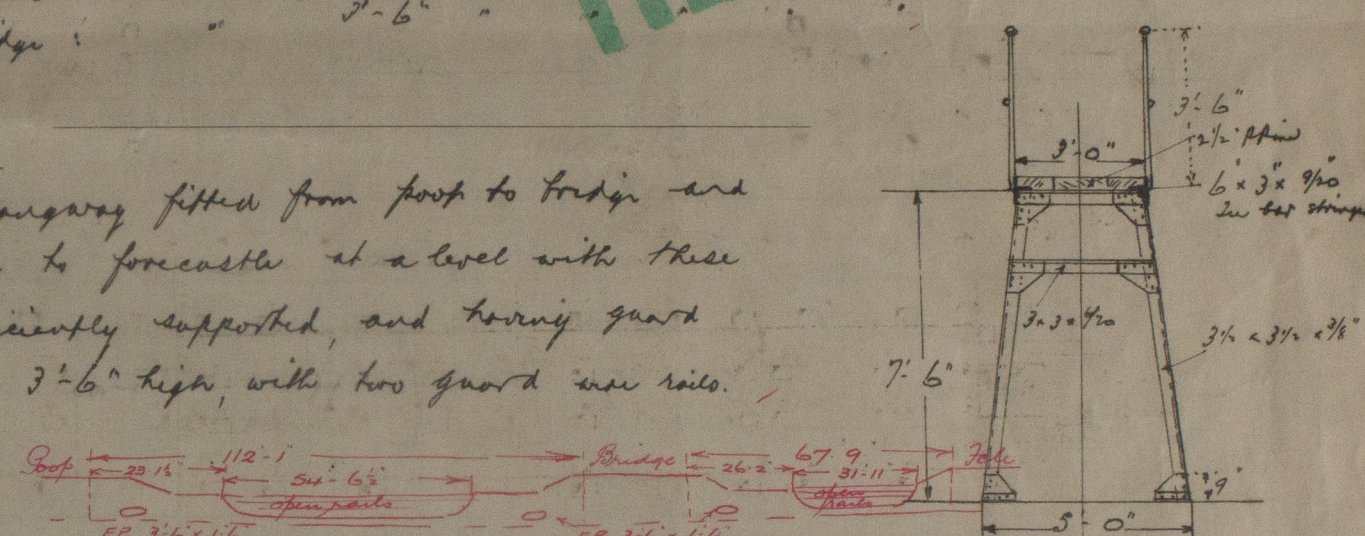
None

Side Scuttles, in Superstructures, and those 1st. 2 feet below foreward deck in lower fore-castle space, of strong construction, those in fore-castle spaces fitted with hinged dead lights. elsewhere provision is made for fitting work plags.

Guard Rails :-

Dorchester creek : Stanchions 3'-9" high with three guard rails. Stanchions spaced 4-5 ft.
" " " " " " " " " "
Fox & Bridge : " 2'-6" " " " " " " "

One x off gangway fitted from poop to fore and from bridge to fore-castle at a level with these decks, efficiently supported, and having guard stanchions 3'-6" high with two guard iron rails



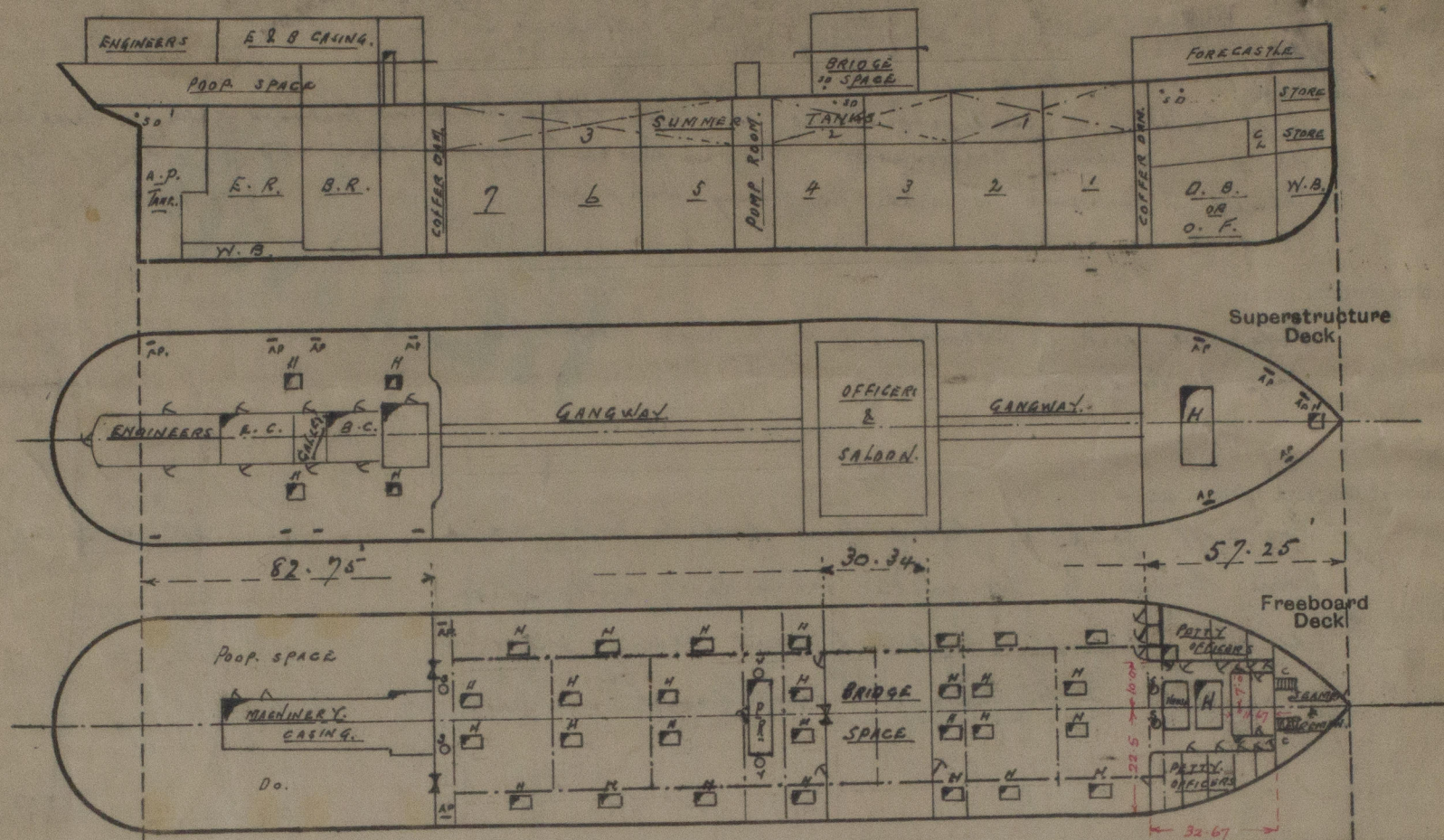
State position of each freeing port ... } After Well :—
(P. and A. position and height above deck edge) } Forward Well :— *12" above deck edge* } *Plan herewith showing alterations made in*
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— *hard to comply with Convention Freeboard*
requirements.
Additional area where sheer is less than standard.

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	3" Shipping boards full height in riveted channels.
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	2 hinged steel doors with turnbuckles manipulated from both sides. + 1 3" Shipping boards full height in riveted channels specially supported.
Bridge, Forward Bulkhead	Hinged steel watertight door manipulated from both sides.
Forecastle Bulkhead	Hinged steel and hardwood doors manipulated from both sides.
Exposed Machinery Casings on Freeboard on Raised Quarter Decks ...	Pump Room Coaming: Hinged steel door, manipulated from both sides.
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors manipulated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors manipulated from both sides.
Deckhouses on Finish Deck Shins ...	✓

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Foundation
W568-00982/2

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:—

BRITISH COMMERCE



85% of 27' = 22.95' = 22.11 1/2
 Keel = 23' 2" full
 Depth @ 22' = 8420
 14' @ 34.9 = 490
 8910 1/2 shull

FORECASTLE:
 EQUIV. BND = 57.25 - 32.67 x 10 1/2 11
 22.5
 = 57.25 - 14.52 = 42.73
 = 46.36
 CH = 10.89

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

Vessel Surveyed in Dry Dock.

The following alterations etc. are now in hand: viz:—

- (1) Bulwarks as per plan herewith
- (2) Screw plugs to openings of after Cofferdam air pipes.
- (3) W. I. steel door to after end of Engineers Deckhouse in lieu of wood.
- (4) also several minor alterations and additions.

Builder's name and yard number W. Beardmore & Co Ltd.

Names of sister ships This Report refers to the S.S. 'BRITISH COMMERCE'

Owners British Tankers Co Ltd.

Fee £ 12 : 15 : 0

Received by me.



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