

16 AUG 1932

Index. No. 32243  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

No 31007

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

*Poop, Bridge, & Forecastle*  
(Type of Superstructures.)

Port of Survey

*Sunderland.*

Date of Survey

*15<sup>th</sup> August 1932.*

Name of Surveyor

*D. J. Paton.*

Ship's Name

*"BRITISH ENDEAVOUR"*

Nationality and Port of Registry

*British London*

Official Number

*149914*

Gross Tonnage

*450*

Date of Build

*1927.*

Moulded Dimensions: Length

*380.5'*

Breadth

*50.0'*

Depth

*27.6'*

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

*786*

tons

Coefficient of fineness for use with Tables

Particulars of Classification

*+100 A.I.*  
*Carrying Petroleum in bulk.*  
*Fitted for oil fuel 10.27. F.P. Attm 50° F.*

Depth for Freeboard (D)

Moulded depth ... *27.5'*

Stringer plate *75* ... *0.05*

Sheathing on exposed deck

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

Depth for Freeboard (D) = *27.55'*

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =

*(27.55 - 25.36) 2.927 = +6.41"*

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

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) *50.00*

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

Ship's Round of Beam *1.04* = *12.48"*

Difference

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times .552 = -.07"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>92.77'</i>	<i>92.77'</i>	<i>8.0'</i>		<i>92.77'</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	<i>30.0'</i>	<i>30.00</i>	<i>8.0'</i>		<i>30.00</i>
" overhang aft ...	<i>4.25'</i>	<i>3.19</i>			<i>3.19</i>
" overhang forward	<i>4.25'</i>	<i>2.12</i>			<i>2.12</i>
Fore enclosed ...	<i>54.97'</i>	<i>37.33</i>	<i>8.0'</i>		<i>37.33</i>
" overhang ...	<i>10.06</i>	<i>5.03</i>			<i>5.03</i>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<i>178.66</i>	<i>170.44</i>			<i>170.44</i>

Standard Height of Superstructure *7.305*

" " R.Q.D. *1*

Deduction for complete superstructure *40.70*

Percentage covered  $\frac{S}{L} = 46.95\%$

"  $\frac{S_1}{L} = 44.80\%$

"  $\frac{E}{L} = 44.80\%$

Percentage from Table, Line A.  
(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. *35.80%*

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = *40.70 x .358 = -14.57"*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>48.05</i>	1		<i>48.05</i>	<i>57.5</i>	<i>57.50</i>	1		<i>57.50</i>
$\frac{1}{2}$ L from A.P. ...	<i>21.39</i>	4		<i>85.56</i>	<i>25.67</i>	<i>25.67</i>	4		<i>102.68</i>
$\frac{3}{8}$ L " ...	<i>5.28</i>	2		<i>10.56</i>	<i>6.40</i>	<i>6.40</i>	2		<i>12.80</i>
Amidships ...	<i>1</i>	4		<i>0</i>	<i>1</i>	<i>1</i>	4		<i>4</i>
$\frac{3}{8}$ L from F.P. ...	<i>10.57</i>	2		<i>21.14</i>	<i>11.62</i>	<i>11.62</i>	2		<i>23.24</i>
$\frac{1}{2}$ L " ...	<i>42.77</i>	4		<i>171.08</i>	<i>46.61</i>	<i>46.61</i>	4		<i>186.44</i>
F.P. ...	<i>96.10</i>	1		<i>96.10</i>	<i>105.0</i>	<i>105.00</i>	1		<i>105.00</i>
Total ...				<i>432.49</i>					<i>487.60</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 = *Tanker.*  
" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{55.17}{18} \left( .75 - \frac{2347}{18} \right) = -1.58"$

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 = *27.55*

Summer freeboard = *4.40*

Moulded draught (d) = *23.15*

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *5.79 = 5\frac{3}{4}*

Addition for Winter North Atlantic Freeboard (if required) = *3\frac{3}{4}*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 9933$

Tons per inch immersion at summer load water line

T = *38.46*

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

= *6.47 = 6\frac{1}{2}"*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{786 + .68}{1.36} = \frac{1.46}{1.36}$

Depth Correction ... *6.41*

Deduction for superstructures ... *14.57*

Sheer correction ... *1.58*

Round of Beam correction ... *.07*

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

Summer Freeboard = *52.73*

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

Tropical Fresh Water Line above Centre of Disc ...	<i>12\frac{1}{4}"</i>	Tropical Fresh Water Freeboard ...	<i>4' 4\frac{3}{4}"</i>
Fresh Water Line " " ...	<i>6\frac{1}{2}"</i>	Fresh Water " " ...	<i>3' 4\frac{1}{2}"</i>
Tropical Line " " ...	<i>5\frac{3}{4}"</i>	Tropical " " ...	<i>3' 10\frac{1}{4}"</i>
Winter Line below " " ...	<i>5\frac{3}{4}"</i>	Winter " " ...	<i>5' 11"</i>
Winter North Atlantic Line " " ...	<i>9\frac{1}{2}"</i>	Winter North Atlantic " " ...	<i>4' 10\frac{1}{2}"</i>
			<i>5' 2\frac{1}{4}"</i>

11 AUG 1932

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12 MAR 1936  
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MARKING FORM  
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W 421 - 0163 (113)

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	18 D.T. hatches on upper Deck to Cargo Tanks	8 D.T. on upper Deck to Summer Tanks, No. 1 Summer Tank	2 D.T. on upper Deck to Summer Tanks	Shut hatches on F.C.L. Dk. to Fore Peak Tank	Cargo Hatch on F.C.L. Dk.	Hatch on upper Deck to F.C.L.			
Dimensions of Hatchway	6'0" x 4'0"	6'0" x 4'0"	4'0" x 4'0"	2'12" x 2'6"	7'7" x 18'0"	5'0" x 10'0"			
COAMINGS	Height above Deck	12'3 1/2" x 1/4"	17' x 20"	17' x 20"	2'6"	3'8" x 30"	2'1"		
	Thickness	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"		
	Sides	Butt Angle	1/4"	1/4"	1/4"	1/4"	1/4"		
	Stiffeners	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"		
	Brackets, Stays	✓	✓	✓	✓	✓	✓		
HATCH BEAMS	Number								
	Spacing								
	Scantling and Sketch								
	Bearing Surface								
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface								
HATCH COVERS	Material	Steel	Steel	Steel	P.P.	P.P.	Steel		
	Thickness	1/2"	1/2"	1/2"	3"	3"	1/2"		
	How fitted	Hinged & butterfly bolts	Hinged & butterfly bolts	Ditto	F.S.A.	F.S.A.	Hinged & butterfly bolts		
	Bearing Surface	2' Plating on Coaming	2' Plating on Coaming	Ditto	3"	3"	2' Plating on Coaming		
Spacing of Cleats					14"	20"			
Number of Tarpaulins					2	2			
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>none</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.  
 Engine & Boiler Room Ventilators in efficient condition.  
 Engine room & Galley skylights of steel. Strongly constructed.

Particulars of Flush Bunker Scuttles:—

NONE.

Particulars of Companionways:—

NONE.

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

Two on Fore Stk. 15 dia. Coaming 36" x 36" to Fore Hold.  
 Two " " " 10 " " 36" x 25 " to Crew Accommodation.  
 Two " " " 6 " " 36" x 25 " " " "  
 Fourteen " " " 7 " " 36" x 25 " " " "  
 Eight " " " 6 " " 30" x 25 " to Fore Peak Tank & Stores.

Wood plugs &amp; Canvas covers fitted to all Ventilator Coamings.

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

Copper gauze netting to mouth  
 & Canvas covers.

Two on Fore Stk. 3 dia. 17 1/2" high to mouth. to Fore Peak Tank  
 Four " " " 4 " " 10 " " " to Deep Tank, & S.B. Tank.  
 Four " " " 4 " " 17 " " " to Lower & Aft Cofferdams.  
 Two " " " 4 " " 17 " " " to O.F. Bunkers.  
 Two " " " 4 " " 16 " " " to Boiler Room Tank.  
 Two " " " 2 1/2 " " 19 " " " Air filling " " Double bottom.  
 Two " " " 2 1/2 " " 19 " " " to Engine Room Tank.  
 Two " " " 3 " " 20 " " " to After Peak Tank.

Particulars of Gangway Cargo and Coaling Ports:—

NONE.

## Lloyd's Register of Shipping.

Ship's Name BRITISH ENDEAVOUR

Official No. 149914

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines

in AUG., 1932.

The hatch on the forecastle deck is now fitted with a steel

cover, with toggles and butterflys

Shifting boards in full height riveted channels are fitted in

the bridge after bulkhead between the two watertight doors.

(Liv., May, 1933).

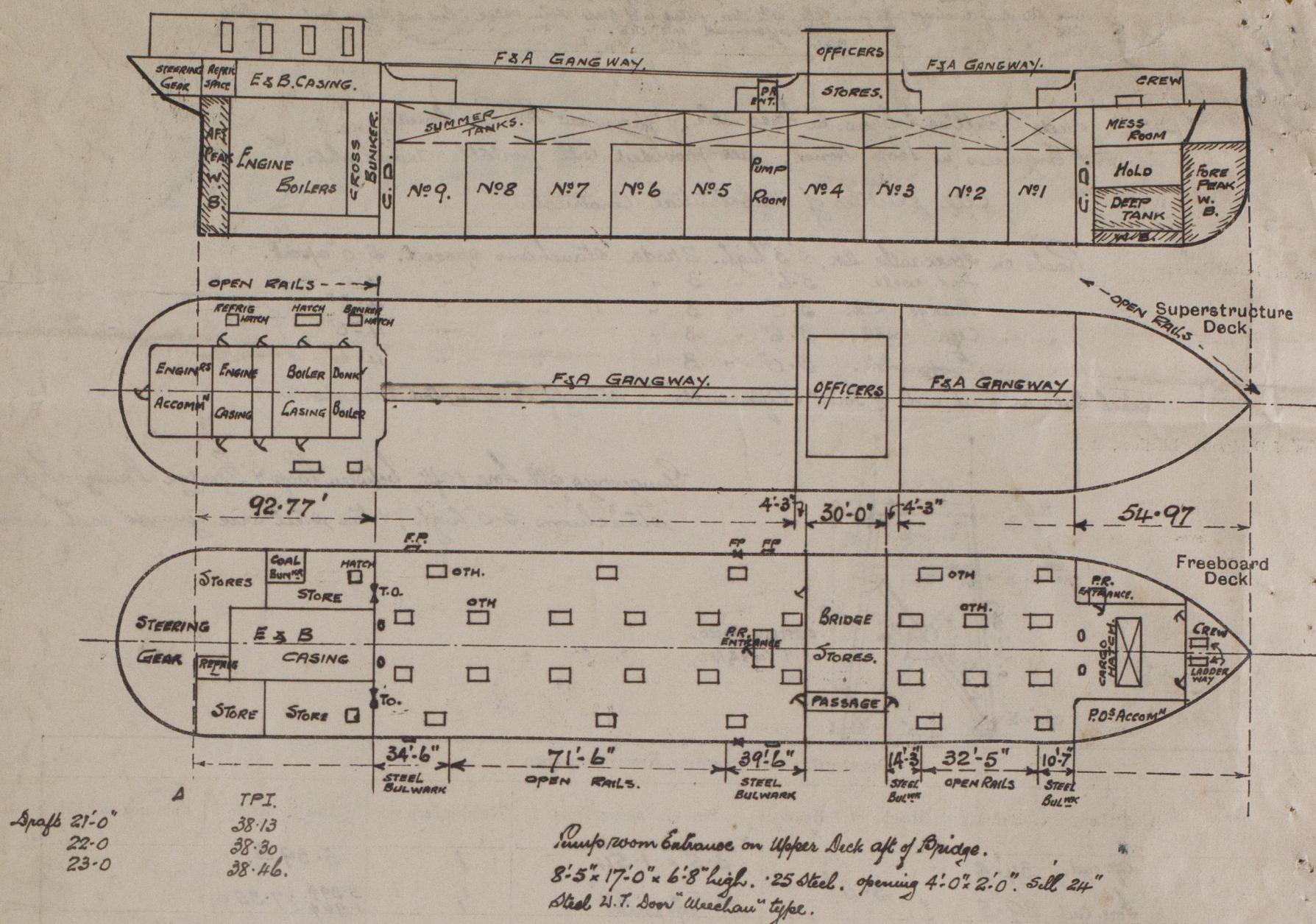
30 MAY 1936

W421-0163 (213)

W421-0163 (313)



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:—



Builder's name and yard number

*Armstrong Whitworth & Co. Ltd.*

Names of sister ships

*"British Progress."*

Owners

*British Tanker Co. Ltd.*

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