

Rpt. C.11 (Compd.)  
*Empire Victoria*  
 37488

29 JAN 1945 *fld. 2243*  
 Index No. *37866*  
 (For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER~~) (TUG).

Ship's Name <b>"EMPIRE BARBARA"</b>	Official Number 180320	Nationality and Port of Registry BRITISH. HULL.	Gross Tonnage 274.	Date of Build 1945	Port of Survey <i>Hull.</i>
Moulded Dimensions: Length <i>105'-0"</i> Breadth <i>26'-6"</i> Depth <i>13'-0"</i>					Date of Survey <i>During Construction</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>504</i> tons					Surveyor's Signature <i>W. Macleod</i>
Coefficient of fineness for use with Tables <i>.68 (.574 actual) T = 5.2</i>					Particulars of Classification <i>* 100 A.1.</i> <b>"FOR TOWING SERVICES"</b> (CONTEMPLATED)

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ... ..	<i>13'-0"</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(13.03-7.00) x .808 = +4.87</i>		Moulded Breadth (B)	<i>26.5'</i>
Stringer plate ... ..	<i>.029</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	= <i>6.36</i>
Sheathing on exposed deck	<input checked="" type="checkbox"/>			Ship's Round of Beam	= <i>7 1/2"</i>
$T \left( \frac{L-S}{L} \right) =$				Difference	<i>1.14</i>
Depth for Freeboard (D) =	<i>13'-029</i>	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right)$	= $\frac{1.14}{4} = -.29$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
"  overhang ... ..					
R.Q.D. enclosed ... ..					
"  overhang ... ..					
Bridge enclosed ... ..					
"  overhang aft ... ..					
"  overhang forward ... ..					
F'cle enclosed ... ..					
"  overhang ... ..					
Trunk aft ... ..					
"  forward ... ..					
Tonnage opening aft ... ..					
"  "  forward ... ..					
Total ... ..					

Standard Height of Superstructure .....  
 " " R.Q.D. ....  
 Deduction for complete superstructure.....  
 Percentage covered  $\frac{S}{L} =$  } *Flush Deck*  
 " "  $\frac{S_1}{L} =$  }  
 " "  $\frac{E}{L} =$  }  
 Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required))  
 Percentage from Table, Line B.  
 (corrected for absence of forecastle (if required))  
 Interpolation for bridge less than .2L (if required)  
 Deduction = *Nil*

SHEERS MEASURED FROM TOP OF KEEL TO DECK AT SIDE

SHEER CORRECTION.

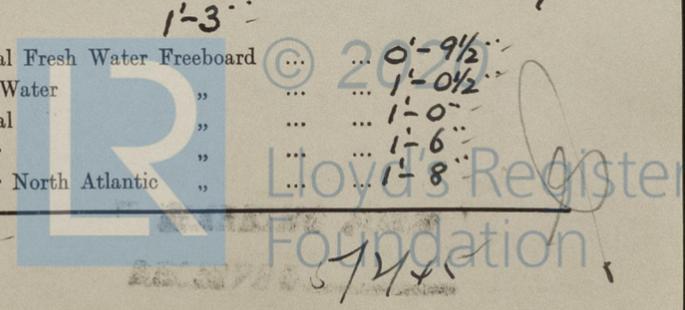
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	<i>20.50</i>	1	<i>20.50</i>	<i>36.00</i>	<i>36.00</i>	1	<i>36.00</i>
1/8 L from A.P. ... ..	<i>9.12</i>	4	<i>36.48</i>	<i>17.50</i>	<i>17.50</i>	4	<i>70.00</i>
3/8 L " ... ..	<i>2.255</i>	2	<i>4.51</i>	<i>6.00</i>	<i>6.00</i>	2	<i>12.00</i>
Amidships ... ..	-	4	-	<i>13.0</i>	-	4	-
3/8 L from F.P. ... ..	<i>4.51</i>	2	<i>9.02</i>	<i>4.25</i>	<i>4.25</i>	2	<i>8.50</i>
1/8 L " ... ..	<i>18.25</i>	4	<i>73.00</i>	<i>24.00</i>	<i>24.00</i>	4	<i>96.00</i>
F.P. ... ..	<i>41.00</i>	1	<i>41.00</i>	<i>60.00</i>	<i>60.00</i>	1	<i>60.00</i>
Total ... ..			<i>184.51</i>				<i>282.50</i>

Mean actual sheer aft =  
 Mean standard sheer aft = } *errors*  
 Mean actual sheer forward =  
 Mean standard sheer forward = }  
 Length of enclosed superstructure forward of amidships = } *Nil*  
 " " aft of " = }  
 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{97.99 \times .75}{18} = -4.08$   
 If limited on account of midship superstructure. *No. Flush Deck*  
 If limited to maximum allowance of 1 1/2 ins. per 100 ft. *1/2 - 1.58*

<b>Deduction for Tropical Freeboard.</b>	<b>Deduction for Fresh Water.</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required)	<i>12.07</i>
<b>Addition for Winter and Winter North Atlantic Freeboard.</b>	Displacement in salt water at summer load water line $\Delta = 555$	Correction for coefficient	<i>12.07</i>
Depth to Freeboard Deck = <i>13.03</i>	Tons per inch immersion at summer load water line $T = 5.29$	Depth Correction ... ..	<i>4.87</i>
Summer freeboard = <i>1.25</i>	Deduction = $\frac{\Delta}{40T}$ inches $= \frac{555}{40 \times 5.29} = 2.62 = 2 1/2$	Deduction for superstructures ... ..	<i>-</i>
Moulded draught (d) = <i>11.78</i>	MEAN DRAFT	Sheer correction ... ..	<i>- 1.58</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>2.94 = 3</i>	EXT. DISP. T.	Round of Beam correction ... ..	<i>- .29</i>
Addition for Winter North Atlantic Freeboard (if required) = <i>5</i>	<i>12'-0" 532 5.22</i> <i>11'-0" 468 5.03</i> <i>10'-0" 408 4.84</i>	Correction for Thickness of Deck amidships ... ..	<i>-</i>
		Other corrections, scantlings, etc. ... ..	<i>-</i>
		Summer Freeboard = <i>15.07</i>	<i>+ 3.00</i>

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

Tropical Fresh Water Line above Centre of Disc ... ..	<i>5 1/2</i>	Tropical Fresh Water Freeboard ... ..	<i>20'-9 1/2</i>
Fresh Water Line " " ... ..	<i>2 1/2</i>	Fresh Water " " ... ..	<i>1'-0 1/2</i>
Tropical Line " " ... ..	<i>3</i>	Tropical " " ... ..	<i>1'-0</i>
Winter Line below " " ... ..	<i>3</i>	Winter " " ... ..	<i>1'-6</i>
Winter North Atlantic Line " " ... ..	<i>5</i>	Winter North Atlantic " " ... ..	<i>1'-8</i>



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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Trade of ship FOR TOWING SERVICES.

Names of sister ships "EMPIRE JOSEPHINE" "EMPIRE CHRISTOPHER" "EMPIRE JENNY"

Builder's name and yard number COCHRANE & SONS LTD. YARD N° 1292.

Owners THE MINISTRY OF WAR TRANSPORT.

Fee £ TO BE CHARGED WITH FIRST ENTRY.

*Over*



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