

EMPIRE RUSKIN  
36939 Etc.Index. No. 37222  
(For London Office only).

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"EMPIRE PERDITA"</b>	Official Number 169051 <del>165865</del>	Nationality and Port of Registry British South Shields.	Gross Tonnage 4028 7043 4000 Appear.	Date of Build 23/10/47 1943.	Port of Survey <b>NEWCASTLE-ON-TYNE</b>
Moulded Dimensions: Length <b>425.83</b> ✓ Breadth <b>56.00</b> ✓ Depth <b>34.64</b> ✓					Date of Survey <b>Building</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>14100.</b> ✓ tons					Surveyor's Signature <b>A.A. Hain</b>
Coefficient of fineness for use with Tables $\frac{14100 \times 35}{425.83 \times 56 \times 32.02} = .484.$ ✓					Particulars of Classification <b>+100.A.1</b> <i>with foremast (contingent)</i>

<b>Depth for Freeboard (D).</b> Moulded depth ... <b>34.64</b> Stringer plate ... <b>.05</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>34.42</b> ✓	<b>Depth correction.</b> (a) Where D is greater than Table depth (D - Table depth) R = $(34.42 - 28.39) 3 = +24.99$ ✓ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures	<b>Round of Beam correction.</b> Moulded Breadth (B) <b>56.00</b> ✓ Standard Round of Beam = $\frac{B \times 12}{50} = \frac{56 \times 12}{50} = 13.44.$ ✓ Ship's Round of Beam = <b>14.00</b> ✓ Difference = <b>.56</b> ✓ Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.56^2}{4} \times \left( 1 - \frac{.56}{42} \right) = -.13$ ✓
---	--	---

## 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 ...	<b>35.66</b>	<b>35.66</b>	<b>6.45</b>	<b>6.45/1.5</b>	<b>32.09</b>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<b>35.66</b>	<b>35.66</b>			<b>32.09</b> ✓

Standard Height of Superstructure **7.5** ✓  
 " " R.Q.D. -  
 Deduction for complete superstructure **42.00** ✓  
 Percentage covered  $\frac{S}{L} = .0834$   
 $\frac{S_1}{L} = .0834$   
 $\frac{E}{L} = .0458$   
 Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required)) **3.7%**  
 Percentage from Table, Line B.  
 (corrected for absence of forecastle (if required)) ✓  
 Interpolation for bridge less than 2L (if required) ✓  
 Deduction = **42.00 × .037 = -1.48** ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<b>52.58</b>	1		<b>52.58</b>	<b>31.00</b>	<b>31.00</b>	1		<b>31.00</b>
$\frac{1}{4}$ L from A.P. ...	<b>23.40</b>	4		<b>93.60</b>	<b>.06</b>	<b>.06</b>	4		<b>.24</b>
$\frac{2}{4}$ L " ...	<b>5.485</b>	2		<b>11.56</b>			2		
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	<b>11.56</b>	2		<b>23.12</b>			2		
$\frac{1}{4}$ L " ...	<b>46.80</b>	4		<b>187.20</b>	<b>6.33</b>	<b>6.33</b>	4		<b>25.32</b>
F.P. ...	<b>105.16</b>	1		<b>105.16</b>	<b>81.00</b>	<b>81.00</b>	1		<b>81.00</b>
Total ...				<b>443.22</b>					<b>134.56</b>

Mean actual sheer aft = **Deficient** ✓  
 Mean standard sheer aft =  
 Mean actual sheer forward = **Deficient** ✓  
 Mean standard sheer forward =  
 Length of enclosed superstructure forward of amidships =  
 " " aft of " = } **Deficient Sheer**  
*Sheer parallel to base line from frame 20 to frame 124.* ✓  
 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{335.22}{18} \times \frac{75-32.09}{2 \times 42} = +13.21$  ✓  
 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 = <b>34.42</b> Summer freeboard = <b>11.048</b> Moulded draught (d) = <b>26.634</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.66</b> Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 13960$ Tons per inch immersion at summer load water line $T = 49.2$ Deduction = $\frac{\Delta}{40T}$ inches = <b>13960</b> $40 \times 49.2 = 1968$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{68+784}{1.36} = \frac{1.464(\text{part})}{1.36}$ ✓ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td><b>27.99</b></td> <td><b>1.58</b></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td><b>1.58</b></td> </tr> <tr> <td>Sheer correction ...</td> <td><b>13.21</b></td> <td></td> </tr> <tr> <td>Round of Beam correction ...</td> <td></td> <td><b>.13</b></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. <i>to be considered</i></td> <td><b>6.02</b></td> <td><b>.7</b></td> </tr> <tr> <td><i>6 in design draught of 26' 9" an extreme summer</i></td> <td><b>14.22</b></td> <td><b>1.81</b></td> </tr> </table> Summer Freeboard = <b>133.00</b>		+	-	Depth Correction ...	<b>27.99</b>	<b>1.58</b>	Deduction for superstructures ...		<b>1.58</b>	Sheer correction ...	<b>13.21</b>		Round of Beam correction ...		<b>.13</b>	Correction for Thickness of Deck amidships ...			Other corrections, scantlings, etc. <i>to be considered</i>	<b>6.02</b>	<b>.7</b>	<i>6 in design draught of 26' 9" an extreme summer</i>	<b>14.22</b>	<b>1.81</b>
	+	-																								
Depth Correction ...	<b>27.99</b>	<b>1.58</b>																								
Deduction for superstructures ...		<b>1.58</b>																								
Sheer correction ...	<b>13.21</b>																									
Round of Beam correction ...		<b>.13</b>																								
Correction for Thickness of Deck amidships ...																										
Other corrections, scantlings, etc. <i>to be considered</i>	<b>6.02</b>	<b>.7</b>																								
<i>6 in design draught of 26' 9" an extreme summer</i>	<b>14.22</b>	<b>1.81</b>																								

## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck.

Tropical Fresh Water Line above Centre of Disc ...	<b>13' 4"</b>	Tropical Fresh Water Freeboard ...	<b>9' 11 1/4"</b>
Fresh Water Line " " ...	<b>4' 3/4"</b>	Fresh Water " " ...	<b>10' 6"</b>
Tropical Line " " ...	<b>6' 3/4"</b>	Tropical " " ...	<b>10' 6 1/4"</b>
Winter Line below " " ...	<b>6' 3/4"</b>	Winter " " ...	<b>11' 7 3/4"</b>
Winter North Atlantic Line " " ...		Winter North Atlantic " " ...	

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.

Design draught - 26.75' extreme  
 less hull - 0.12  
26.63

Est. draught.	Est. D.	T.D.1.
28'-0	14400	49.8 ✓
26'-9	13960	49.2 ✓
26'-0	13520	48.4 ✓

*omit*

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £

*W. Type standard vessel. Sister to same Builders no. 529 Empire Rockin*

*John Readhead & Son Ltd. No. 533.*

*Ministry of War Transport.*

*to be charged with 1/2 pence*



© 2021

Lloyd's Register  
Foundation