

15 JUN 1942

Rpt. C.11 (Comp.).

Empire Baffin 36639.  
etc.

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Index No. 36861  
(For London Office only).

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT NO 21880.

Ship's Name <b>EMPIRE GALAHAD</b>	Official Number <b>168985</b>	Nationality and Port of Registry <b>BRITISH GREENOCK</b>	Gross Tonnage <b>7046 APPROX 7000</b>	Date of Build <b>1942</b>	Port of Survey <b>GREENOCK</b>
Moulded Dimensions: Length <b>425' 88"</b> Breadth <b>56'</b> Depth <b>27' 9"</b> To Upper Deck <b>16400</b> To Lower Deck <b>11985</b>				Date of Survey <b>WHILE BUILDING</b>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth				Surveyor's Signature <b>Kennedy</b>	
Coefficient of fineness for use with Tables <b>769</b>				Particulars of Classification <b>*100 A1. WITH FREEBOARD (CONTEMPLATED)</b>	

Depth for Freeboard (D) <b>36.83</b>	Depth correction.	Round of Beam correction.
Moulded depth <b>36.83</b>	(a) Where D is greater than Table depth (D - Table depth) R = <b>(36.90 - 28.39) × 3 = +7.53"</b>	Moulded Breadth (B) <b>56</b>
Stringer plate <b>07</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>8.51</b>	Standard Round of Beam = $\frac{B \times 12}{50} = 13.44$
Sheathing on exposed deck <b>✓</b>	If restricted by superstructures <b>✓</b>	Ship's Round of Beam = <b>14.00</b>
T $\left(\frac{L-S}{L}\right) =$		Difference <b>0.56</b>
Depth for Freeboard (D) = <b>36.90</b>		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.56^2}{4} \times .9181 = -.13"$

## 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 ...					
Forecastle enclosed ...	<b>34.88</b>	<b>34.88</b>	<b>7' 6"</b>	<b>✓</b>	<b>34.88</b>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<b>34.88</b>	<b>34.88</b>			<b>34.88</b>

Standard Height of Superstructure **7.5'**

" " R.Q.D. **✓**

Deduction for complete superstructure **42.00"**

Percentage covered  $\frac{S}{L} =$  **8.19**

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

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

Percentage from Table, Line A. **4.10**

(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 = **42.00 × .0410 = -1.72"**

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<b>52.59</b>	1		<b>52.59</b>	<b>✓ 54</b>	<b>54</b>	1		<b>54.00</b>
$\frac{1}{8}L$ from A.P. ...	<b>23.40</b>	4		<b>93.60</b>	<b>✓ 24</b>	<b>24</b>	4		<b>96.00</b>
$\frac{2}{8}L$ " ...	<b>5.785</b>	2		<b>11.57</b>	<b>✓ 6</b>	<b>6</b>	2		<b>12.00</b>
Amidships ...	<b>-</b>	4		<b>-</b>	<b>0</b>	<b>-</b>	4		<b>-</b>
$\frac{3}{8}L$ from F.P. ...	<b>11.57</b>	2		<b>23.14</b>	<b>✓ 12</b>	<b>12</b>	2		<b>24.00</b>
$\frac{4}{8}L$ " ...	<b>46.805</b>	4		<b>187.22</b>	<b>✓ 48</b>	<b>48</b>	4		<b>192.00</b>
F.P. ...	<b>105.18</b>	1		<b>105.18</b>	<b>✓ 108</b>	<b>108</b>	1		<b>108.00</b>
Total ...				<b>473.30</b>					<b>486.00</b>

Mean actual sheer aft = **Excess**

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **Nie**

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} = \frac{12.7}{18} = .709$  **Yes, nie.**

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <b>79.62 + 1.16 = 80.78"</b>
Depth to Freeboard Deck = <b>36.90</b>	$\Delta = 27 - 13975 = 13534$	<b>86.05</b>
Summer freeboard = <b>10.79</b>	Tons per inch immersion at summer load water line	<b>82.8</b>
Moulded draught (d) = <b>26.11</b>	T = <b>27 - 48.33 = 48.00</b>	<b>15.642</b>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.52 = 6\frac{1}{2}"</b>	Deduction = $\frac{\Delta}{40T}$ inches = <b>7.04</b>	
Addition for Winter North Atlantic Freeboard (if required) = <b>✓</b>	<b>= 7"</b>	

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

Tropical Fresh Water Line above Centre of Disc	13\frac{1}{2}"	Tropical Fresh Water Freeboard	10' - 9\frac{1}{2}"
Fresh Water Line	7"	Fresh Water	9' - 8"
Tropical Line	6\frac{1}{2}"	Tropical	10' - 2\frac{1}{2}"
Winter Line below	6\frac{1}{2}"	Winter	10' - 3"
Winter North Atlantic Line	✓	Winter North Atlantic	11' - 4"



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.

Note The openings on the tween deck bulkheads are closed as required by the D. M. S. R. letter M. S. 1835 of 21.3.40.

For basis computation see "Empire Laffin", 36639.

SWT

Trade of ship

International.

Names of sister ships

Y3 Type Lithgorn Ltd No 969. Empire Anster, York report No 21805.

Builder's name and yard number

Lithgorn Ltd No 970.

Owners

The Ministry of War Transport.

Amount

Fee £

18 0 0.



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