

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 36569

(For London Office only).

F.B.D. 891

Ship's Name LAD EMPIRE GARNET	Official Number 168217	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 500 298	Date of Build 1941	Port of Survey IPSWICH
Moulded Dimensions: Length 125'-6" Breadth 24'-0" Depth 10'-9" <i>To centre of rudder stock</i> 124'-6"					Date of Survey 3-7-41
Moulded displacement at moulded draught = 85 per cent. of moulded depth 552 tons					Surveyor's Signature <i>J. H. S. M.</i>
Coefficient of fineness for use with Tables .708					Particulars of Classification +100 A.1 <i>carrying helium in bulk</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 10.75'	(a) Where D is greater than Table depth (D - Table depth) R = (10.78 - 8.30) x .958 = +2.38"	Moulded Breadth (B) 24.00'
Stringer plate32	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 2.48	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{5.76}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 6"
Depth for Freeboard (D) = 10.78		Difference = .24"
		Restricted to ✓
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.24}{4} \times .931 = \mathbf{-.039}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	39.0	39.00	7'-0"	✓	39.00	Standard Height of Superstructure 6.0'
.. overhang ...	✓					.. R.Q.D. 18.45
R.Q.D. enclosed ...	✓					Deduction for complete superstructure 18.45
.. overhang ...	✓					Percentage covered $\frac{S}{L} = \mathbf{47.19\%}$
Bridge enclosed ...	✓					.. $\frac{S_1}{L} = \mathbf{46.69\%}$
.. overhang aft ...	✓					.. $\frac{E}{L} = \mathbf{46.69\%}$
.. overhang forward ...	8					Percentage from Table, Line A. 29.18
Fore enclosed ...	18.50	18.50	6'-4"	✓	18.50	(corrected for absence of forecastle (if required)) ✓
.. overhang ...	1-3	.63			.63	Percentage from Table, Line B. ✓
Trunk aft ...	✓					(corrected for absence of forecastle (if required)) ✓
.. forward ...	✓					Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft ...	✓					Deduction = 18.45 x .2918 = -5.38"
.. forward ...	✓					
Total ...	58'-9"	58.13			58.13	

SHEER CORRECTION.

Station	Standard Ordinate	S-M	Product	Actual Ordinate	Effective Ordinate	S-M	Product	Mean actual sheer aft =
A.P. ...	22.45	1	22.45	✓ 25"	25.0	1	25.0	Excess
1/4 L from A.P. ...	9.99	4	39.96	10"	10.0	4	40.0	Mean actual sheer forward = Excess
1/2 L ..	2.47	2	4.94	3"	3.0	2	6.0	Mean standard sheer forward
Amidships ...	-	4	-	-	-	4	-	Length of enclosed superstructure forward of amidships = Nil
3/4 L from F.P. ...	4.94	2	9.88	5 1/2"	5.5	2	11.0	.. aft of .. = 0
1/4 L ..	19.98	4	79.92	20 1/2"	20.5	4	82.0	
F.P. ...	44.90	1	44.90	✓ 46 1/2"	46.5	1	46.5	
Total ...			202.05				210.5	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{8.45}{18} \left(\frac{75-23.5}{2 \times 125} \right) = \mathbf{-.24"} \quad \text{If limited to maximum allowance of } 1\frac{1}{2} \text{ ins. per 100 ft. } \checkmark$

If limited on account of midship superstructure. **Yes, no allowance**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 10.78 Summer freeboard = .81 Moulded draught (d) = 9.97 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.49 = 2 1/2 Addition for Winter North Atlantic Freeboard (if required) = 2 1/2 + 2 = 4 1/2	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40T}$ inches $\frac{d}{4} = \mathbf{2 1/2}$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient .708 + .68 = 1.388 1.36 <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>2.38</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>5.38</td> </tr> <tr> <td>Sheer correction ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Round of Beam correction ...</td> <td>-</td> <td>.03</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td>2.38</td> <td>5.41</td> </tr> </table> Summer Freeboard = 9.68		+	-	Depth Correction ...	2.38	-	Deduction for superstructures ...	-	5.38	Sheer correction ...	-	-	Round of Beam correction ...	-	.03	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		2.38	5.41
	+	-																								
Depth Correction ...	2.38	-																								
Deduction for superstructures ...	-	5.38																								
Sheer correction ...	-	-																								
Round of Beam correction ...	-	.03																								
Correction for Thickness of Deck amidships ...	-	-																								
Other corrections, scantlings, etc. ...	-	-																								
	2.38	5.41																								

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

Tropical Fresh Water Line above Centre of Disc	5"
Fresh Water Line	2 1/2"
Tropical Line	2 1/2"
Winter Line below	2 1/2"
Winter North Atlantic Line	4 1/2"

Tropical Fresh Water Freeboard	0' - 9 3/4"
Fresh Water	0' - 4 3/4"
Tropical	0' - 7 1/4"
Winter	0' - 7 1/4"
Winter North Atlantic	1' - 2 1/4"

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.

Trade of ship

Names of sister ships

Builder's name and yard number ROWHEDGE Ironworks Ltd. No 601

Owners

Fee £

*change
to 75/-*

Summit



© 2021

Lloyd's Register
Foundation