

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"RIPPINGHAM GRANGE"</b>	Official Number <b>169564</b>	Nationality and Port of Registry <b>BRITISH</b> <b>London.</b>	Gross Tonnage <b>10365</b>	Date of Build <b>1943</b>	Port of Survey <b>NEWCASTLE-ON-TYNE</b>
Moulded Dimensions: Length <b>445.0'</b> Breadth <b>65.25'</b> Depth <b>38.21'</b>					Date of Survey <b>DURING CONSTRUCTION</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>20120</b> tons					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables <b>.747</b>					Particulars of Classification <b>*100A1</b> (Contemplated)

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <b>38.21</b>	(a) Where D is greater than Table depth (D - Table depth) R = <b>(38.28 - 29.67) × 3 = 25.83 +</b>	Moulded Breadth (B) <b>65.25</b>
Stringer plate ... <b>.04</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>8.61</b>	Standard Round of Beam = $\frac{B \times 12}{50} = 15.66$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) = .21 \times .1401 = .03$	If restricted by superstructures	Ship's Round of Beam = <b>16.00</b>
Depth for Freeboard (D) = <b>38.28'</b>		Difference <b>Excess .34</b>
		Restricted to
		Correction = $\frac{\text{Diff}^o}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.34}{4} \times .1414 = .01$

## 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 ...	<b>380.33</b>	<b>380.33</b>	<b>7.83</b>		<b>380.33</b>
„ overhang aft ...	<b>2.33</b>	<b>1.75</b>	<b>WEATHERING</b>		<b>1.75</b>
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<b>382.66</b>	<b>382.08</b>			<b>382.08</b>

  

Standard Height of Superstructure	<b>7.5'</b>
„ „ R.Q.D.	
Deduction for complete superstructure	<b>42.00</b>
Percentage covered $\frac{S}{L} =$	<b>85.99</b>
„ „ $\frac{S_1}{L} =$	<b>85.86</b>
„ „ $\frac{E}{L} =$	<b>85.86</b>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<b>82.57</b>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = <b>42 × .8257 = 34.68</b>	

## SHEER CORRECTION. (Lowest point of sheer 54 ft abaft midships - 2 1/2")

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<b>54.50</b>	1		<b>54.50</b>	<b>32.50</b>	<b>32.50</b>	1		<b>32.50</b>
1/4 L from A.P. ...	<b>24.25</b>	4		<b>97.00</b>	<b>8.50</b>	<b>8.50</b>	4		<b>34.00</b>
3/8 L „ ...	<b>5.99</b>	2		<b>11.98</b>	<b>-2.12</b>	<b>-2.12</b>	2		<b>-4.24</b>
Amidships ...	<b>-</b>	4		<b>-</b>	<b>-</b>	<b>-</b>	4		<b>-</b>
3/8 L from F.P. ...	<b>11.99</b>	2		<b>23.98</b>	<b>11.50</b>	<b>11.50</b>	2		<b>23.00</b>
1/4 L „ ...	<b>48.51</b>	4		<b>194.04</b>	<b>32.75</b>	<b>32.75</b>	4		<b>131.00</b>
F.P. ...	<b>109.00</b>	1		<b>109.00</b>	<b>63.50</b>	<b>63.50</b>	1		<b>63.50</b>
Total ...				<b>490.50</b>					<b>279.76</b>

  

Mean actual sheer aft =	<b>deficient</b>
Mean standard sheer aft	
Mean actual sheer forward =	<b>deficient</b>
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships =	<b>sheer</b>
„ „ aft of „ =	<b>deficient.</b>

  

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{210.74 \times 3201 + 375}{18}$   
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<b>85.55</b>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{747+68}{1.36} \times \frac{1.427}{7.36}$	<b>89.46</b>
Depth to Freeboard Deck = <b>38.25</b>	$\Delta = 19341$	Depth Correction ... <b>25.83</b>	
Summer freeboard = <b>7.02</b>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <b>34.68</b>	
Moulded draught (d) = <b>31.23'</b>	T = <b>60.20</b>	Sheer correction ... <b>3.75</b>	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>7.81 = 7 3/4</b>	Deduction = $\frac{\Delta}{40T}$ inches = <b>1.9341</b>	Round of Beam correction ... <b>.01</b>	
Addition for Winter North Atlantic Freeboard (if required)	<b>60.2 × 40 = 2408</b>	Correction for Thickness of Deck amidships ... <b>.36</b>	
	<b>= 8.03 = 8"</b>	Other corrections, scantlings, etc. ...	
		<b>39.58 35.05 = 5.47</b>	
		Summer Freeboard = <b>84.29</b>	

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

Tropical Fresh Water Line above Centre of Disc ... <b>15 3/4"</b>	Tropical Fresh Water Freeboard ... <b>7' 0 1/4"</b>
Fresh Water Line „ „ <b>8"</b>	Fresh Water „ „ <b>6' 4 1/4"</b>
Tropical Line „ „ <b>7 3/4"</b>	Tropical „ „ <b>6' 4 1/2"</b>
Winter Line below „ „ <b>7 3/4"</b>	Winter „ „ <b>7' 8"</b>
Winter North Atlantic Line „ „ <b>-</b>	Winter North Atlantic „ „ <b>-</b>

Rippingham GRANGE

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.

DISPLACEMENT PARTICULARS

<u>EXTREME DRAFT.</u>	<u>EXTREME DISPLACEMENT</u>	<u>TONS PER INCH.</u>
31'0"	19025 TONS.	60.00
32'0"	19765 TONS.	60.45
33'0"	20513 TONS	60.90

THICKNESS OF KEEL AND GARBOARD STRAKES 2 1/2"

Trade of ship OCEAN-GOING REFRIGERATED CARGO SHIP.

Names of sister ships 'BEACON GRANGE' YARD N<sup>o</sup> 610 (HAWTHORN-LESLIE'S)

Builder's name and yard number R. & W. HAWTHORN LESLIE & CO LD. N<sup>o</sup> 653

Owners HOULDER BROS.

Fee CHARGED WITH FIRST ENTRY.



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