

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 37600
(For London Office only).

River *37391*

BAI FENG

Ship's Name <i>RIVER GLENELG.</i>	Official Number <i>156017.</i>	Nationality and Port of Registry <i>British</i> <i>Port Adelaide.</i>	Gross Tonnage <i>4914.</i>	Date of Build <i>1944</i>	Port of Survey
Moulded Dimensions: Length <i>426.25</i> Breadth <i>56.5</i> Depth <i>27.5 to end deck.</i> <i>To centre of rudder stock</i> <i>26.5 to shell deck.</i>					Date of Survey <i>27.4.44.</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>16230</i> tons <i>11720 to end deck.</i>					Surveyor's Signature
Coefficient of fineness for use with Tables <i>.729</i>					Particulars of Classification <i>+100A1.</i> <i>with freeboard.</i>

Depth for Freeboard (D). Moulded depth ... <i>27.50</i> Stringer plate ... <i>.04</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>✓</i> Depth for Freeboard (D) = <i>27.54</i>	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = <i>✓</i> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>(28.42 - 27.54) × 3 = -2.64.</i> <i>.88</i> If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) <i>56.50</i> Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>13.56</i> Ship's Round of Beam = <i>3.00</i> Difference <i>10.56</i> Restricted to <i>✓</i> Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>\frac{10.56}{4} \times .0055 = +.01.</i>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>32.42</i>	<i>32.42</i>			<i>32.42</i>
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
„ Enclosed ...	<i>389.17</i>	<i>389.17</i>	<i>9-0</i>		<i>389.17</i>
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...	<i>4.66</i>	<i>2.33 = 1/2 diff.</i>			<i>2.33</i>
„ „ forward ...					
Total ...	<i>426.25</i>	<i>423.92</i>			<i>423.92</i>

Standard Height of Superstructure	<i>7.5</i>
„ „ R.Q.D.	<i>✓</i>
Deduction for complete superstructure	<i>42</i>
Percentage covered $\frac{S}{L} =$	<i>100.00</i>
„ „ $\frac{S_1}{L} =$	<i>99.45</i>
„ „ $\frac{E}{L} =$	<i>99.45</i>
Percentage from Table, Line A.	<i>99.32</i>
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	<i>✓</i>
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	<i>42 × 99.32 = -41.71.</i>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>52.625</i>	1		<i>52.62</i>	<i>52.81</i>	<i>70.81</i>	1		<i>70.81</i>
1/4 L from A.P. ...	<i>23.415</i>	4		<i>93.66</i>	<i>23.50</i>	<i>31.51</i>	4		<i>126.04</i>
1/2 L „ ...	<i>5.79</i>	2		<i>11.58</i>	<i>6.12</i>	<i>7.79</i>	2		<i>15.58</i>
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	<i>11.58</i>	2		<i>23.16</i>	<i>11.50</i>	<i>13.62</i>	2		<i>27.24</i>
1/4 L „ ...	<i>46.83</i>	4		<i>187.32</i>	<i>46.94</i>	<i>55.13</i>	4		<i>220.52</i>
F.P. ...	<i>105.25</i>	1		<i>105.25</i>	<i>105.87</i>	<i>123.87</i>	1		<i>123.87</i>
Total ...				<i>473.59</i>	<i>+18.</i>				<i>584.06</i>

Mean actual sheer aft = *70.81*
Mean standard sheer aft = *70.81*

Mean actual sheer forward = *126.04*
Mean standard sheer forward = *126.04*

Length of enclosed superstructure forward of amidships = *126.04*
aft of „ = *15.58*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{110.47}{18} \times .25 = -1.53$
If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft. *✓*

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <i>27.54</i> Summer freeboard = <i>3.06</i> Moulded draught (d) = <i>24.48</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.37 = 6 3/8</i> Addition for Winter North Atlantic Freeboard (if required) =	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 = <i>6 1/2</i>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{729 + .68}{1.36} = \frac{1.409}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>-</td> <td><i>2.64</i></td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td><i>41.71</i></td> </tr> <tr> <td>Sheer correction</td> <td>-</td> <td><i>1.53</i></td> </tr> <tr> <td>Round of Beam correction</td> <td><i>.01</i></td> <td>-</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><i>.01</i></td> <td><i>45.88</i></td> </tr> </table> Summer Freeboard = <i>36.74</i>		+	-	Depth Correction	-	<i>2.64</i>	Deduction for superstructures	-	<i>41.71</i>	Sheer correction	-	<i>1.53</i>	Round of Beam correction	<i>.01</i>	-	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		<i>.01</i>	<i>45.88</i>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ...	<i>12 1/2</i>	Tropical Fresh Water Freeboard ...	<i>2-0 1/4</i>
Fresh Water Line „ „ ...	<i>6 1/2</i>	Fresh Water „ „ ...	<i>2-6 1/4</i>
Tropical Line „ „ ...	<i>6</i>	Tropical „ „ ...	<i>2-6 3/4</i>
Winter Line below „ „ ...	<i>6</i>	Winter „ „ ...	<i>3-6 3/4</i>
Winter North Atlantic Line „ „ ...	<i>-</i>	Winter North Atlantic „ „ ...	<i>-</i>