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(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Ship's Name "RIVER LODDON" <i>as built with Lonnage opening closed (W.E.)</i>	Official Number 159584	Nationality and Port of Registry <i>British Melbourne</i>	Gross Tonnage 4994	Date of Build	Port of Survey MELBOURNE
Moulded Dimensions: Length 426.0 Breadth 56.5 Depth 36.5 to Shelter Deck 27.5 " 2 nd "				Date of Survey <i>While building</i>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 16230 tons 11720 to 2 nd Deck.				Surveyor's Signature B. P. Fielden	
Coefficient of fineness for use with Tables .761				Particulars of Classification 100 A.1. <i>with freeboard.</i>	

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 36.5	(a) Where D is greater than Table depth (D—Table depth) R = (36.56—28.4)3 = 24.48	Moulded Breadth (B) 56.5
Stringer plate .66	(b) Where D is less than Table depth (if allowed) (Table depth—D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.56$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 9.00
Depth for Freeboard (D) = 36.555		Difference 4.56
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = 1.04 +$

DEDUCTION FOR SUPERSTRUCTURES

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	35.62	35.62	7.5	✓	35.62
" overhang	1.21	1.21			1.21
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	36.83	36.83			36.83

Standard Height of Superstructure **7.5** ft.
" " R.Q.D.
Deduction for complete superstructure **4.2**
Percentage covered $\frac{S}{L} = 8.63\%$
" " $\frac{S_1}{L} = 8.63\%$
" " $\frac{E}{L} = 8.63\%$
Percentage from Table, Line A. **4.32**
(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 = **4.2 + 0.432 = 4.632** **-1.81**

SHEER CORRECTION

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft	Mean standard sheer aft
A.P.	52.65	1		52.65	51.75	51.75	1		51.75		
$\frac{1}{2}$ L from A.P.	23.41	4		93.64	23.875	23.875	4		95.50	Mean actual sheer forward	Mean standard sheer forward
$\frac{2}{3}$ L "	5.789	2		11.578	7.25	7.25	2		14.50		
Amidships	0	4		0	0	0	4		0	Length of enclosed superstructure forward of amidships =	
$\frac{2}{3}$ L from F.P.	11.567	2		23.124	12.125	12.125	2		24.25		
$\frac{1}{2}$ L "	46.78	4		187.12	46.625	46.625	4		186.50	" " aft of "	
F.P.	105.70	1		105.70	104.625	104.625	1		104.63	" " Sheer forward. Actual. Standard.	
Total	20			473.81					477.13		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{3.69}{18} \times .707 = 0.16$ If limited on account of midship superstructure. *Limited to zero.*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 = **36.56** Ft.
Summer freeboard = **11.08**
Moulded draught (d) = **25.48**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.37** = **6.4**Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water

Displacement in salt water at Summer load water line **25.64**
 $\Delta = 13039$
Tons per inch immersion at Summer load water line
 $T = 48.58$

Deduction = $\frac{\Delta}{40T}$ inches = $\frac{13039}{40 \times 48.58} = 6.71 = 6.4$

25' Δ = 12720 T = 48.3
26' Δ = 13309 T = 48.8

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.761 + .68}{1.36} = 1.06$

Depth Correction **24.48**
Deduction for superstructures **1.81**
Sheer correction **1.04**
Round of Beam correction **1.04**
Correction for Thickness of Deck amidships **23.92**

Other corrections, scantlings, etc. to correspond to a summer moulded draught of **25.534**Summer Freeboard = **73.0** **132.97**

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

Tropical Fresh Water Line above Centre of Disc **13**
Fresh Water Line **6.34**
Tropical Line **6.4**
Winter Line below **6.4**
Winter North Atlantic Line **✓**

Tropical Fresh Water Freeboard **10' - 0"**
Fresh Water **10' - 6.4"**
Tropical **10' - 6.4"**
Winter **11' - 7.4"**
Winter North Atlantic **✓**

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" RIVER LODDON "

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.

Forecastle

36.83

$$\text{Recms. } \frac{2 \times 4.08 \times 6}{40.5} = \frac{1.21}{35.62} \approx \text{equiv. overhang} \\ \text{equiv. enclosed.}$$

Trade of ship International and/or Australian Coastal.

Names of sister ships RIVER CLARENCE, RIVER BURDEKIN, RIVER GLENELG, RIVER DERWENT.

Builder's name and yard number Commonwealth Naval Dockyard, Williamstown. YARD N° 29.

Owners Commonwealth of Australia (Department of Supply & Shipping).

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