

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

River Derwent
North Point
ex

Ship's Name RIVER DERWENT	Official Number ✓	Nationality and Port of Registry BRITISH PORT ADELAIDE Hong Kong	Gross Tonnage APPROX. 4920	Date of Build 1944	Port of Survey WHYALLA SOUTH AUSTR.
Moulded Dimensions: Length 426.25 Breadth 56.5 Depth 27.52 to 2nd Dr. (Centre of sudden stock)				Date of Survey WHILE BUILDING	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 41732 tons				Surveyor's Signature <i>G. Pratt</i>	
Coefficient of fineness for use with Tables .729				Particulars of Classification 100 A.1. with freeboard	

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 27.52	(a) Where D is greater than Table depth (D—Table depth) R =	Moulded Breadth (B) 56.5
Stringer plate .43 .04	(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 $T \left(\frac{L-S}{L} \right) =$	(28.42 - 27.52) 3 = -2.58	Ship's Round of Beam = 3.00
Depth for Freeboard (D) = 27.56	If restricted by superstructures	Difference 10.56 ✓
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{10.56 \times .0055}{4} = 7.01$ ✓

DEDUCTION FOR SUPERSTRUCTURES

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	32.42	32.42			32.42	Standard Height of Superstructure 7.50 ✓
" overhang						" " R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 42 ✓
" overhang						Percentage covered $\frac{S}{L} = 100.00$ ✓
Bridge enclosed						" " $\frac{S_1}{L} = 99.45$ ✓
" overhang aft						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A. 99.32 ✓
F'cle enclosed	389.17	389.17			389.17	(corrected for absence of forecastle (if required))
" overhang						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	4.66	2.33 2.33			2.33	Deduction = 42 x 99.32 = -41.71 ✓
" " forward						
Total	426.25	423.92			423.92	

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.	52.625	✓	1	52.62	51.62	70.10	✓	1	70.10	Excess	
1/2 L from A.P.	23.415	✓	4	93.66	23.25	31.26	✓	4	124.80	Excess	
2/3 L "	5.79	✓	2	11.58	6.25	8.55	✓	2	18.42		
Amidships	-		4	-	-	-		4	-		
2/3 L from F.P.	11.58	✓	2	23.16	11.75	13.45	✓	2	27.22		
1/2 L "	46.83	✓	4	187.32	47.42	55.45	✓	4	220.28		
F.P.	105.25	✓	1	105.25	105.27	123.27	✓	1	123.27		
Total				473.29	+18.48				581.67		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{107.98}{18} \times .25 = -1.51$ ✓

If limited on account of midship superstructure.

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

Actual height of S.S. = **9.08** ✓
Standard " " = **7.50**
 $\frac{1.58}{4} = 18.48$ ✓

Mean actual sheer aft **Excess** ✓
Mean standard sheer aft

Mean actual sheer forward **Excess** ✓
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = **27.22** ✓
L

" " aft of " = **220.28** ✓

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 $\frac{.729 + .68}{1.36} = 1.409$
Depth to Freeboard Deck = 27.56	$\Delta = 124.85$	
Summer freeboard = 3.086	Tons per inch immersion at Summer load water line	
Moulded draught (d) = 24.48.50	T = 48.14	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.12.6 ✓	Deduction = $\frac{\Delta}{40T}$ inches = 6.48 = 6 1/2	
Addition for Winter North Atlantic Freeboard (if required) =		

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

Tropical Fresh Water Line above Centre of Disc	12 1/2	Tropical Fresh Water Freeboard	2-0 1/4
Fresh Water Line	6 1/2	Fresh Water	2-6 1/4
Tropical Line	6	Tropical	2-6 3/4
Winter Line below	6	Winter	3-6 3/4
Winter North Atlantic Line	✓	Winter North Atlantic	✓

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 International
Names of sister ships SS. River Glenelg
Builder's name and yard number Broken Hill Pty Co Ltd 1125
Owners Commonwealth of Australia (Dept of Supply & Shipping)
Fee £ See 1st entry



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Foundation