

As Open Shelter-Dealer.

Index. No. 37949
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>River Murray Lodge</i>	Official Number	Nationality and Port of Registry <i>Australian Port Adelaide</i>	Gross Tonnage <i>5030</i>	Date of Build <i>1945</i>	Port of Survey
Moulded Dimensions: Length <i>426.25</i> Breadth <i>56.5</i> Depth <i>27.50</i>					Date of Survey <i>25-4-45</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>11732</i> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>.729</i>					Particulars of Classification <i>+100A1 with freeboard (Contingent)</i>

Depth for Freeboard (D).		Depth correction.	Round of Beam correction.
Moulded depth	27.50	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) 56.5
Stringer plate	.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		(28.42-27.54) x 3 = -2.64	Ship's Round of Beam = 3.00
$T \left(\frac{L-S}{L} \right) =$.88	Difference 10.56
Depth for Freeboard (D) =	27.54	If restricted by superstructures	Restricted to
			Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{10.56}{4} \times .0055 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	32.42			32.42	Standard Height of Superstructure 7.5
" 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					" " $\frac{E}{L} = 99.45$
" overhang forward					Percentage from Table, Line A. 99.32
Fore enclosed	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 = $\frac{1}{2}$ diff.		2.33	Deduction = $42 \times 99.32 = -41.71$
" forward					
Total	426.25	423.92		423.92	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	52.625	1		52.625	53.37	71.37	1		71.37	Mean actual sheer aft =
$\frac{1}{8}L$ from A.P.	23.415	4		93.66	23.62	31.76	4		127.04	Mean standard sheer aft =
$\frac{3}{8}L$ "	5.79	2		11.58	6.50	7.85	2		15.70	Mean actual sheer forward =
Amidships	-	4		-	-	-	4		-	Mean standard sheer forward =
$\frac{5}{8}L$ from F.P.	11.58	2		23.16	12.25	13.61	2		27.22	Length of enclosed superstructure forward of amidships =
$\frac{7}{8}L$ "	46.83	4		187.32	47.32	55.07	4		220.28	" " aft of "
F.P.	105.25	1		105.25	105.75	123.75	1		123.75	
Total				473.59					585.36	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{111.77(75-.50)}{18} = -1.55$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD	
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Corrected for Flush Deck (if required)	79.74
Depth to Freeboard Deck = 27.54	$\Delta =$	Correction for coefficient $\frac{.729 + .68}{1.36} = \frac{1.409}{1.36}$	82.61
Summer freeboard = 3.06	Tons per inch immersion at summer load water line	Depth Correction	
Moulded draught (d) = 24.48	T =	Deduction for superstructures	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.12 = 6"	Deduction = $\frac{\Delta}{40T}$ inches = 6.2"	Sheer correction	
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction	
		Correction for Thickness of Deck amidships	
		Other corrections, scantlings, etc.	
			Summer Freeboard = 36.72

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

Tropical Fresh Water Line above Centre of Disc	12 1/2"	Tropical Fresh Water Freeboard	3.0 3/4"
Fresh Water Line	6 1/2"	Fresh Water	2.0 1/4"
Tropical Line	6"	Tropical	2.6 1/4"
Winter Line below	6"	Winter	2.6 3/4"
Winter North Atlantic Line	-	Winter North Atlantic	3.6 1/4"