

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

"TUNG FENG"

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Ship's Name <i>ex</i> "RIVER NORMAN"	Official Number 159726	Nationality and Port of Registry <i>Hongkong</i> BRITISH BRISBANE	Gross Tonnage 6659.17	Date of Build 1946-6	Port of Survey BRISBANE
Moulded Dimensions: Length 426.5' Breadth 56.5' Depth 27.5' (To CENTRE OF RUDDER STOCK)					Date of Survey WHILE BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth 11740 tons					Surveyor's Signature <i>J. B. North</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 27.5	(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 $T \left(\frac{L-S}{L} \right) =$	(28.43 - 27.54) 3 = 2.67	Ship's Round of Beam = 3.00
Depth for Freeboard (D) = 27.54	If restricted by superstructures	Difference 10.56
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{10.56 \times .0055}{4} = .01$

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
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft	389.42	389.42	9.0	3	389.42
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft	4.66	2.33			2.33
" forward					
Total	426.50	424.17			424.17

Standard Height of Superstructure	7.5
" " R.Q.D.	
Deduction for complete superstructure	42"
Percentage covered $\frac{S}{L} =$	100.0
" " $\frac{S_1}{L} =$	99.45
" " $\frac{E}{L} =$	99.45
Percentage from Table, Line A.	99.32
(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 = 42 x .9932 = 41.71	

SHEER CORRECTION

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	52.65	1		52.65	52.52	70.52	1		70.52
$\frac{1}{2}L$ from A.P.	23.43	4		93.72	23.50	31.38	4		125.52
$\frac{2}{3}L$ "	5.79	2		11.58	5.75	7.76	2		15.52
Amidships	-	4		-	-	-	4		-
$\frac{2}{3}L$ from F.P.	11.58	2		23.16	11.50	13.53	2		27.06
$\frac{1}{2}L$ "	46.86	4		187.44	46.75	54.73	4		218.92
F.P.	105.30	1		105.30	105.00	123.00	1		123.00
Total				473.85	+18"				580.54

Mean actual sheer aft
Mean standard sheer aft

Mean actual sheer forward
Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

" " aft of " =

ACTUAL HEIGHT OF SUPERSTRUCTURES = 9.00
STANDARD " " " = 7.50
1.50
= 18"

EXCESS

C.S.S.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{106.69}{18} \times .25 = 1.48$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard
Addition for Winter and Winter North Atlantic Freeboard

Ft.
Depth to Freeboard Deck = 27.54
Summer freeboard = 3.046
Moulded draught (d) = 24.50

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.12 = 6"
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water

Displacement in salt water at Summer load water line
 $\Delta = 12430$
Tons per inch immersion at Summer load water line
T = 48.0
Deduction = $\frac{\Delta}{40T}$ inches
= 6.47 = 6½"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.729 + .68}{1.36} = 1.036$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Summer Freeboard = 36.78

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

Tropical Fresh Water Line above Centre of Disc	12½"
Fresh Water Line	6½"
Tropical Line	6"
Winter Line below	6"
Winter North Atlantic Line	-

Tropical Fresh Water Freeboard	3' 0¾"
Fresh Water	2' 0¼"
Tropical	2' 6¼"
Winter	2' 6¾"
Winter North Atlantic	3' 0¾"

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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..... "RIVER HUNTER", "RIVER MITTA", RIVER MURRAY" ETC.

Builder's name and yard number..... EVANS DEAKIN & CO. LTD. YARD No 19.

Owners..... COMMONWEALTH OF AUSTRALIA (DEPARTMENT OF SUPPLY & SHIPPING)

Fee £ 16 : 0 : 0



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