

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name BANDON I.	Official Number	Nationality and Port of Registry THAILAND BANGKOK.	Gross Tonnage	Date of Build 1951	Port of Survey
Moulded Dimensions: Length 42.300 Breadth 8.240 Depth 3.150					Date of Survey 2.1.52.
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 677 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .705					Particulars of Classification +100 A.1. For service in the Gulf of Thailand.

DEPTH FOR FREEBOARD (D). Moulded depth ... 3.150 Stringer plate ... 10 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = 65 \times \frac{15.38}{42.50} = 24$ Depth for Freeboard (D) = 3.184	DEPTH CORRECTION. (a) Where D is greater than Table depth $(D - \text{Table depth}) R = 8.33(3.184 - 2.834) = 10.73 = +31/-$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures <input checked="" type="checkbox"/>	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 8.24 Standard Round of Beam = $\frac{B \times 10}{50} = 165/-$ Ship's Round of Beam = 160/- Difference 5 Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{5^2}{4} \times \frac{4875}{4} = +1/-$
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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	12.50	12.50	1.041	-	12.50
" overhang					
Bridge enclosed	5.290	2.645	2.150	-	2.645
" overhang aft	1.090	.817		-	.817
" overhang forward					
F'cle enclosed	5.820	5.820	2.150	-	5.820
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	24.700	21.782			21.782

Standard Height of Superstructure	1.83
" " R.Q.D.	.991
Deduction for complete superstructure	507/-
Percentage covered $\frac{S}{L} =$	58.12
" " $\frac{S_1}{L} =$	51.25
" " $\frac{E}{L} =$	51.25
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	33.75
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	37.25
Interpolation for bridge less than .2L (if required)	33.75 + (3.50 x $\frac{3.462}{8.50}$) = 35.17
Deduction =	507 x 35.17 = 178/-

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	608	1	608	450	450	1	450
1/4 L from A.P.	270	4	1080	189	189	4	756
3/4 L	68	2	136	53	53	2	106
Amidships	-	4	-	-	-	4	-
3/4 L from F.P.	135	2	270	100	100	2	200
1/4 L	541	4	2164	398	398	4	1592
F.P.	1216	1	1216	900	900	1	900
Total			5472				4004

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{1470(75 - .2906)}{18} = +38/-$
 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 = 3.160 Summer freeboard = .489 Moulded draught (d) = 2.671 Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} = 56/- = 2 1/4$ Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 705$ tons Tons per immersion at summer load water line $T = 334$ Deduction = $\frac{\Delta}{40 T} = 53/-$ = 2	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{705 + 68}{136} = 1.385/1.36$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>31</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>178</td> </tr> <tr> <td>Sheer correction</td> <td>38</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>1</td> <td>-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td>24</td> </tr> <tr> <td>Other corrections, scantlings, etc. to summer draught of 8'-9"</td> <td>254</td> <td>-</td> </tr> <tr> <td></td> <td>324</td> <td>202</td> </tr> </table> Summer Freeboard = 489		+	-	Depth Correction	31	-	Deduction for superstructures	-	178	Sheer correction	38	-	Round of Beam correction	1	-	Correction for Thickness of Deck amidships	-	24	Other corrections, scantlings, etc. to summer draught of 8'-9"	254	-		324	202
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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	4 1/4
Fresh Water Line	2 1/4
Tropical Line	2 1/4
Winter Line below	Not Assigned
Winter North Atlantic Line	Not Assigned

Tropical Fresh Water Freeboard
 Fresh Water
 Tropical
 Winter
 Winter North Atlantic

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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 _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ 25,000



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Foundation