

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "MORETON BAY"	Official Number 130169	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 14,376	Date of Build 1921 11 mos.	Port of Survey _____
Moulded Dimensions: Length 529.8' Breadth 68.0' Depth 43.50'					Date of Survey 8th Aug. 1950.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29540 tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables .776 ✓					Particulars of Classification +100A1 Shelter DR. with Freeboard. ✓

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 43.50	(a) Where D is greater than Table depth (D-Table depth) R = (43.68-35.32) 3 = +25.08" ✓	Moulded Breadth (B) 68.00
Stringer plate08	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 8.36 ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 16.32
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \times .4009$.10	If restricted by superstructures ✓	Ship's Round of Beam = 6.00
Depth for Freeboard (D) = 43.68		Difference 10.32 ✓
		Restricted to
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{10.32}{4} \times .4326 = +1.12"$ ✓

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	206.17	206.17	8' 4"		206.17
" overhang aft					
" overhang forward					
F'cle enclosed <i>Equiv.</i>	77.69	77.69	7' 10"		77.69
" overhang	33.57	16.78	7' 10"		16.78
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	317.43	300.64			300.64

Standard Height of Superstructure **7.5**

" " R.Q.D. ✓

Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} =$ **59.91**

" " $\frac{S_1}{L} =$ **56.74**

" " $\frac{E}{L} =$ **56.74**

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **42.74**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = **42.00 × .4274 = -17.95** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	62.98	1	62.98	60.00	60.00	1	60.00
$\frac{1}{2}$ L from A.P.	28.03	4	112.12	27.65	27.65	4	110.60
$\frac{2}{3}$ L "	6.93	2	13.86	6.91	6.91	2	13.82
Amidships	✓	4	✓	✓	✓	4	✓
$\frac{2}{3}$ L from F.P.	13.86	2	27.72	13.08	13.08	2	26.16
$\frac{1}{2}$ L "	56.05	4	224.20	52.34	52.34	4	209.36
F.P.	125.96	1	125.96	120.00	120.00	1	120.00
Total			566.84				539.94

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{26.90}{18} (.75 - .2995) = +.67$ ✓

If limited on account of midship superstructure. **.4505** 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 = **43.58** Ft.

Summer freeboard = **10.54**

Moulded draught (d) = **33.04** ✓

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **8.26 = 8 $\frac{1}{4}$ "** ✓

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches = **8 $\frac{3}{4}$ "** ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	$\frac{.776 + .68}{1.36} = 1.456$	$\frac{1.456}{1.36}$	110.84 ✓
			118.67 ✓
Depth Correction	25.08	✓	
Deduction for superstructures	17.95	✓	
Sheer correction67	✓	
Round of Beam correction	1.12	✓	
Correction for Thickness of Deck amidships	1.20	✓	
Other corrections, scantlings, etc.	✓	✓	
	26.87	19.15	+ 7.72
			Summer Freeboard = 126.39 ✓

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Shelter* Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	17"
Fresh Water Line " "	8$\frac{3}{4}$"
Tropical Line " "	8$\frac{3}{4}$"
Winter Line below " "	8$\frac{3}{4}$"
Winter North Atlantic Line " "	✓

Tropical Fresh Water Freeboard	9' 1$\frac{1}{2}$"
Fresh Water " "	9' 9$\frac{3}{4}$"
Tropical " "	9' 10$\frac{1}{4}$"
Winter " "	11' 2$\frac{3}{4}$"
Winter North Atlantic " "	✓

Moreton Bay.

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.

$$F' \text{ cle length} = 73'-8''$$

$$\begin{array}{r} 36'-3'' \\ 109'-11'' \end{array}$$

$$= 109.92'$$

$$4/10 = 52.98$$

$$\text{Deduct } \frac{17.75 \times 22.25}{59.67} = 6.62'$$

$$\frac{2 \times 25.0 \times 3}{59.67} = 2.52$$

$$\frac{36.25 \times 41.25}{64.75} = \frac{23.09}{32.23}$$

$$109.92$$

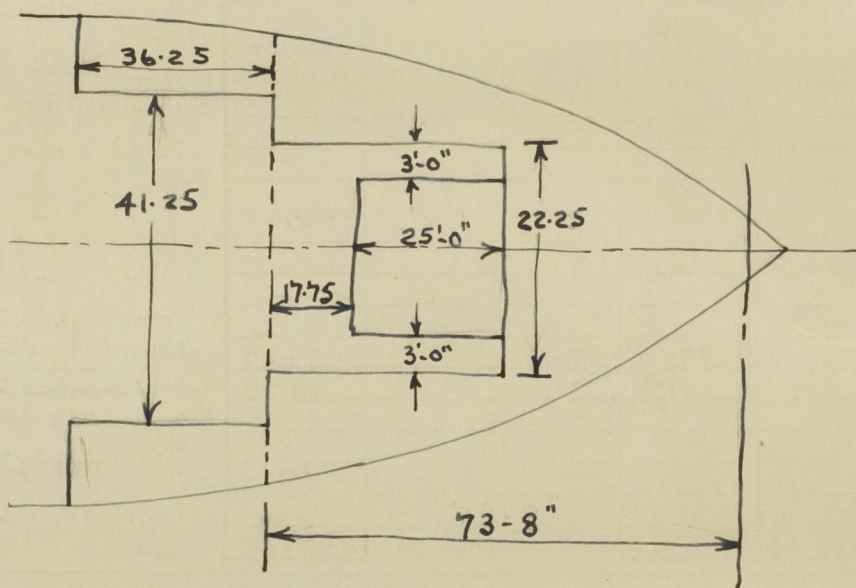
$$\frac{32.23}{77.69} = \text{keel length.}$$

$$110.59$$

$$\frac{77.69}{32.90}$$

$$+ 0.67$$

$$33.57 = \text{overhang.}$$



Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation