

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "MERMAID"	Official Number <i>NOT YET 300985 ASSIGNED</i>	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 1220 (APPROX)	Date of Build 1959	Port of Survey BUILDING, COWES, I.W.
Moulded Dimensions: Length 207-08 Breadth 37'-6 1/4" Depth 23'-6 1/4"				Date of Survey DURING BUILDING 1959	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3085 tons				Surveyor's Signature <i>Emmott</i>	
Coefficient of fineness for use with Tables $\frac{3085 \times 35}{207.08 \times 37.52 \times 19.99}$ 0.695				Particulars of Classification 100 A1 LIGHTHOUSE TENDER	

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 23.52	(a) Where D is greater than Table depth (D-Table depth) R = $\frac{23.67 - 13.81}{9.86} = 1.571$	Moulded Breadth (B) 37'-6 1/4"
Stringer plate 03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 9"$
Sheathing on exposed deck (2 1/2") $T \left(\frac{L-S}{L} \right) = \frac{21.120.5}{207.08} = 12$	If restricted by superstructures	Ship's Round of Beam = 9"
Depth for Freeboard (D) = 23.75 23.67		Difference NIL
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ NIL

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					
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure _____
" " R.Q.D. _____
Deduction for complete superstructure _____
Percentage covered $\frac{S}{L} =$ _____
" " $\frac{S_1}{L} =$ _____
" " $\frac{E}{L} =$ _____
Percentage from Table, Line A.
(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 = _____

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	30.71	1	30.71	24 3/8	24.38	1	24.38
1/2 L from A.P.	13.67	4	54.68	10 3/8	10.38	4	41.52
2/3 L "	3.38	2	6.76	2 5/8	2.63	2	5.26
Amidships	0	4	0	0	0	4	0
2/3 L from F.P.	6.76	2	13.52	5 9/16	5.56	2	11.12
1/2 L "	27.33	4	109.32	22 1/2	22.50	4	90.00
F.P.	61.42	1	61.42	50 3/4	50.75	1	50.75
Total			276.41				223.03

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{53.38}{18} \times .75 = + 2.22$
If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Mean actual sheer aft = **DEFICIENT**
Mean standard sheer aft =
Mean actual sheer forward = **DEFICIENT**
Mean standard sheer forward =
Length of enclosed superstructure forward of amidships =
" " aft of " = **NIL**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. <i>TOP OF WOOD OK.</i> Depth to Freeboard Deck = 23.75 Summer freeboard = 10.75 Moulded draught (d) = 13.00 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.25 Addition for Winter North Atlantic Freeboard (if required) = 3 1/4 + 2 = 5 1/4	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 1800.5$ Tons per inch immersion at summer load water line $T = 15.03$ Deduction = $\frac{\Delta}{40 T}$ inches = $\frac{1800.5}{40 \times 15.03} = 2.99 \div 3.0$	TABULAR FREEBOARD Corrected for Flush Deck (if required) 27.41 Correction for coefficient $\frac{695 + 68}{1.36} = 1.375 / 1.36$ 27.71 Depth Correction 15.71 Deduction for superstructures Sheer correction 2.22 Round of Beam correction Correction for Thickness of Deck amidships 1.06 Other corrections, scantlings, etc. 101.29 CORRESPOND TO A 2 1/2" DRAUGHT OF 13.00. Summer Freeboard = 129.00
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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	6"	Tropical Fresh Water Freeboard	10 3/8
Fresh Water Line " "	3" (RESTRICTED)	Fresh Water " "	10 3/8
Tropical Line " "	3" (RESTRICTED)	Tropical " "	10 3/8
Winter Line below " "	3 1/4	Winter " "	11 0 1/4
Winter North Atlantic Line " "	5 1/4	Winter North Atlantic " "	11 2 1/4

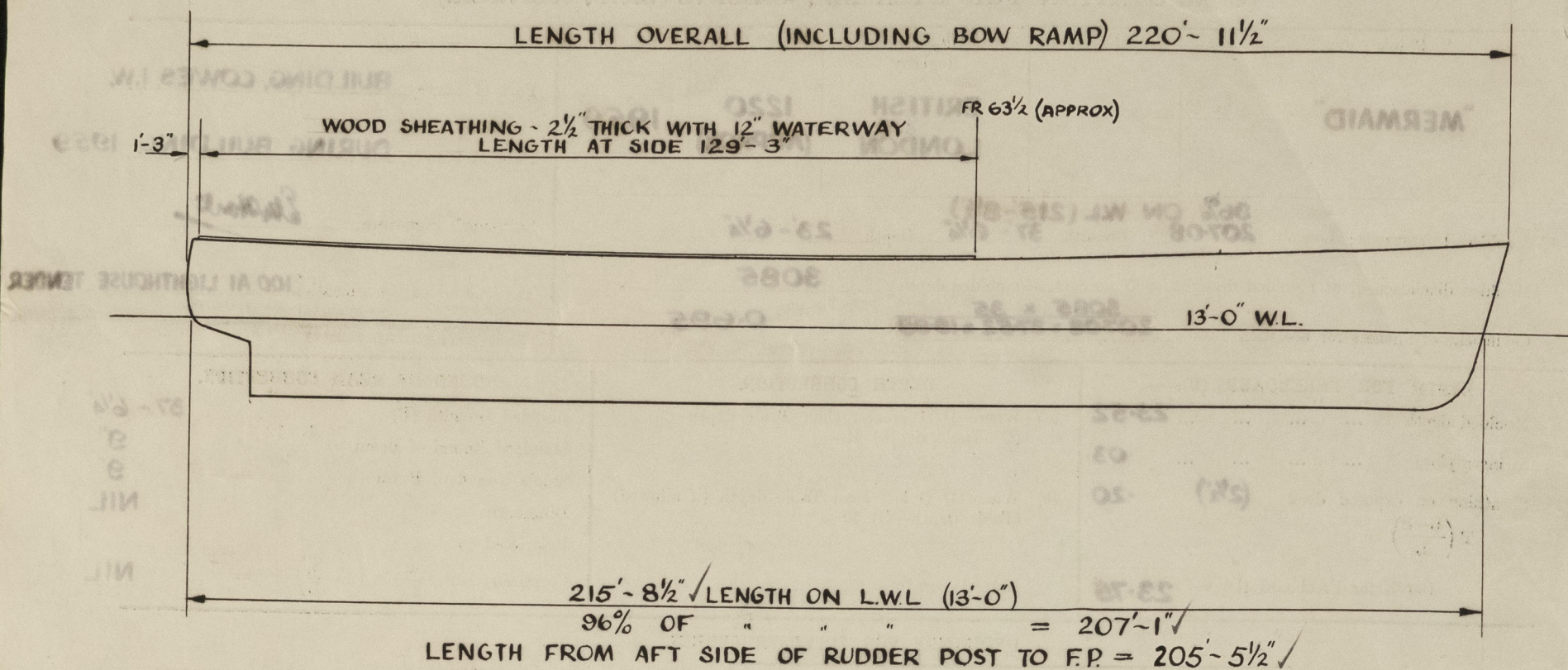
1.9.59

5m T 12/47.

012779-012785-0234

Mermaid

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 LIGHTHOUSE TENDER

Names of sister ships

Builder's name and yard number J.S. WHITE & CO LTD COWES, I.W. BUILDING N° 2002

Owners THE CORPORATION OF TRINITY HOUSE

Fee £ 31 : 0 : 0



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Foundation