

Assignment of Timber L.L.S.

933/2

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

BLUESTONE.

5. "HEMINGE" SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER, *Empire UK ex Marklyn* WITH *WATCHED* TIMBER DECK CARGO

Nationality *British* Builders' Name and No. of Ship *ex "War Course" Type Iron S.B.*

Port of Registry *Newport Mon.* *Co Ld. No 214*

Official Number *142682* Owners *MARTIN MARTIN & CO. LTD.*

Gross Tonnage *3090* 3228.82 *MESSRS CONSTANT (SOUTH WALES) LTD. THE CRETE SHIPPING CO LTD.*

Date of Build *10/1918* Port and Date of survey *Glasgow.*

Name of Surveyor *A. MacArthur*

Particulars of Classification *B.S.* Names of Sister Ships

Type of Superstructures *Poop Bridge & Forecastle.*

Trade of Ship

Service Endorsement if any

Line	Material	Measurement	Corresponding Freeboard
SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)			<i>3'-11 3/4"</i>
TROPICAL FRESH WATER LINE above centre of disc		<i>10 1/2"</i>	<i>3'-11 1/4"</i>
FRESH WATER LINE " " "		<i>6"</i>	<i>3'-5 3/4"</i>
TROPICAL LINE " " "		<i>4 1/2"</i>	<i>3'-7 1/4"</i>
WINTER LINE below " "		<i>4"</i>	<i>4'-3 3/4"</i>
WINTER NORTH ATLANTIC LINE " " "		<i>1"</i>	<i>1"</i>

Line	Measurement	Corresponding Freeboard
SUMMER TIMBER FREEBOARD recommended amidships from top of deck line ( <i>11 3/4"</i> )		<i>3'-0"</i>
TROPICAL FRESH WATER Timber line above L.S.	<i>11 1/2"</i>	<i>2'-0 1/2"</i>
FRESH WATER " " " "	<i>6"</i>	<i>2'-6"</i>
TROPICAL " " " "	<i>5 1/2"</i>	<i>2'-6 1/2"</i>
WINTER " " below "	<i>7 1/2"</i>	<i>3'-7 1/2"</i>
WINTER NORTH ATLANTIC " " " "	<i>15 3/4"</i>	<i>4'-3 3/4"</i>

Number of years recommended for load line certificate

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the *H.M.R. November 1942*



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COMPUTATION OF FREEBOARD

Length on summer load line **331'-0"** Moulded Breadth **46'-6"** Moulded Depth **28'-6"** Depth of Keel  
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth **7246** Tons  
 Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times .85} = .76$   
 Displacement and tons per inch immersion in salt water at summer load line  
 Moulded depth **25.500** Deduction for Fresh Water  $\frac{\Delta}{40T} = \frac{1}{4}$  inches  
 Stringer Plate **.46** Round of Beam Correction **.038**  
 Sheathing on exposed deck T  $\left(\frac{L-S}{L}\right)$  Ships Round of Beam **11.5** inches  
 Rise of floor (in sailers) Standard Round of Beam  $\frac{B \times 12}{50} = 11.16$   
 Depth for Freeboard (D) **25.538** Difference **.34**  
 Table Depth  $\frac{L}{15} = 22.067$  Restricted to  
 Depth Correction  $\frac{L}{130} = 3.471$  Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = .085 \times .5136 = .04366 \text{ OFF}$   
 If restricted by superstructures = **8837**

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	32.92		7'-6"	32.92		32.92
Raised Quarter Deck						
Bridge	98.0	F A	2'-0" 7'-6"	100		99.5
Forecastle	28.58		7'-6"	28.58		28.58
Trunk Aft						
" Forward						
Tonnage Opening Aft						
" " Forward						
Totals				161.5		161.00

Standard Height of Superstructure **6.81**  
 " " R.Q.D. -  
 Percentage covered S/L = **48.8**  
 " " E/L = **48.64**  
 " from Table line A, B, (corrected for absence of forecastle if required) **34.844**  
 Percentage from Table by interpolation for Bridge less than .2L if required =  
 Deduction = **37.4 x 34.84 = 13.032 OFF**  
 Percentage from Table for Tankers (or Timber ships) = **66.4**  
 Deduction = **37.4 x 66.847 = 25.58**

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	51	43.1	51	1	51
$\frac{1}{3}$ L from A.P.	22	19.18	22	4	88
$\frac{2}{3}$ L from A.P.	5	4.74	5	2	10
Amidships	0	0	0	4	0
$\frac{1}{3}$ L from F.P.	11.25	9.48	11.25	2	22.5
$\frac{2}{3}$ L " "	43.5	38.36	43.5	4	174
F.P.	102	86.2	102	1	102
				18	447.5
Effective Mean Sheer					24.86
Standard " "		.05L + 5			21.55
Difference					3.31

Mean Actual sheer aft =  $\frac{165}{14.36} > 1$   
 " Standard " "  
 Mean Actual sheer forward =  $\frac{33.28}{28.72} > 1$   
 " Standard " "  
 Length of enclosed superstructure forward of amidships =  
 Length of Ship  
 Length of enclosed superstructure aft of amidships =  
 Length of Ship  
 Sheer Correction = Difference  $\times \left(.75 - \frac{S}{2L}\right) = 3.31 \times .506 = 1.6750$   
 If limited on account of midship superstructure =  
 " to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. =

TABULAR FREEBOARD corrected for flush deck if required = **51.27**

Correction for co-efficient =  $\frac{1.44}{1.36} = 1.059$

54.29 DRAUGHTS AND SEASONAL CORRECTIONS

	+	-		Sailer, Tanker, Steamer	Timber
Depth correction	8.84				
Deduction for superstructures		13.03			
Sheer correction		1.67			
Round of Beam correction		.04			
Correction for thickness of deck amidships					
Other corrections, scantlings, etc.	8.84	14.74	5.90		
Summer Freeboard in Inches	S = 4'-0"		48.39	Depth to Freeboard Deck in feet <b>25.538</b>	<b>25.538</b>
Additional allowance for superstructures on Timber carrying ships <b>25.68 - 13.03</b>			12.55	Summer Freeboard in feet <b>4.042</b>	<b>3.00</b>
Summer Timber Freeboard in Inches			<b>35.84</b>	Moulded Draught (d) <b>21.496</b>	<b>22.538 (d1)</b>
				Addition for Keel	
				Extreme draught	
				Deduction for Tropical and addition for Winter freeboard $d/4 = 5.38$ ins.	
				Addition for Winter North Atlantic (if required)	
				Deduction for Tropical Timber Freeboard $d/3 = 7.15$ ins.	<b>5.645</b> ins.
				Addition for Winter " " $d/3 = 7.15$ ins.	<b>7.513</b> ins.
				" " N.A. Timber Freeboard (if required)	

