

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 USK ex Marklyn

WITH TIMBER DECK CARGO

Nationality

British

Builders' Name and No. of Ship

Type Iron S.B.

Port of Registry

Newport Mon.

Co Ltd. No 214

Official Number

142682

Owners

Messrs. Martin &amp; Co. Ltd.

Gross Tonnage

3090 3228.82

Messrs. Constant (South Wales) Ltd.  
The Grete 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 &amp; Forecastle.

Trade of Ship

Service Endorsement if any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)

TROPICAL FRESH WATER LINE above centre of disc

10 1/2"

Corresponding Freeboard

FRESH WATER LINE

" " "

6"

" "

TROPICAL LINE

" " "

4 1/2"

" "

WINTER LINE

below " "

4"

" "

WINTER NORTH ATLANTIC LINE " " "

1"

" "

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

(11 3/4")

TROPICAL FRESH WATER Timber line above L.S.

11 1/2"

Corresponding Freeboard

FRESH WATER

" " " "

6"

" "

TROPICAL

" " " "

5 1/2"

" "

WINTER

" " below "

7 1/2"

" "

WINTER NORTH ATLANTIC " " " "

15 3/4"

" "

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

11th November 1942

Secretary



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Lloyd's Register  
Foundation

002051-002061-0067



## 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  $\frac{B \times 12}{50} = \frac{11.6}{50}$   
 Depth for Freeboard (D) 25.538 Difference .34  
 Table Depth  $\frac{L}{15} = \frac{22.067}{15}$  Restricted to  
 Depth Correction  $\frac{L}{130} = \frac{3.471}{130}$  Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = .085 \times .5136 = .04366 \text{ OFR}$   
 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 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 .3484 = 13.032 OFR  
 Percentage from Table for Tankers (or Timber ships) = 66.4  
 Deduction = 37.4 x .68487 = 25.58

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	51	43.1	51	1	51
$\frac{1}{8}$ L from A.P.	22	19.18	22	4	88
$\frac{1}{8}$ L from A.P.	5	4.74	5	2	10
Amidships	0	0	0	4	0.5
$\frac{1}{8}$ L from F.P.	11.25	9.48	11.25	2	22.5
$\frac{1}{8}$ 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  $1\frac{1}{8}$  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

	+	-
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  $S = 4.0\frac{1}{2} = 48.39$   
 Additional allowance for superstructures on Timber carrying ships 25.68 - 13.03 = 12.55  
 Summer Timber Freeboard in Inches = 35.84

Sailor, Tanker, Steamer Timber  
 Depth to Freeboard Deck in feet 25.538 25.538  
 Summer Freeboard in feet 4.042 3.00  
 Moulded Draught (d) 21.496 22.538 (d1)  
 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) ins.  
 Deduction for Tropical Timber Freeboard  $d/4 = 5.6345$  ins.  
 Addition for Winter „ „  $d/3 = 7.512$  ins.  
 „ „ N.A. Timber Freeboard (if required) = ins.