

REASSIGNMENT.

2559/2.

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

MENTAKHIS.

STEAMER, TANKER, SAILER: E. S. S. EMPIRE MAYPORT WITH TIMBER DECK CARGO
WITHOUT
 Nationality BRITISH. Builders' Name and No. of Ship Messrs. COOK WELTON & GEMMELL LTD
 Port of Registry SINGAPORE. BEVERLEY. YARD NO 749.
 Official Number 180449. Owners M. O. F. [Name] SINGAPORE STRAITS. S.S. CO LTD.
 Gross Tonnage 394.1.
 Date of Build SEPT. 1945. Port and Date of survey
 Name of Surveyor
 Particulars of Classification BS* (WITH FREEBOARD - EAST INDIAN. ARCHIPELAGO SERVICE). Names of Sister Ships "C" TYPE COASTERS.
 Type of Superstructures
OPEN SHELTER DECK.
 Trade of Ship
 Service Endorsement ~~is~~ AND ONLY SO LONG AS THE SHIP IS ENGAGED IN EAST INDIAN ARCHIPELAGO SERVICE.

~~AMIDSHIPS~~

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)		Corresponding Freeboard
TROPICAL FRESH WATER LINE above centre of disc	3"	0' - 2 1/2"
FRESH WATER LINE " " "	2 1/2"	0' - 0 1/2"
TROPICAL LINE " " "	1 1/2"	0' - 2"
WINTER LINE below " "		
WINTER NORTH ATLANTIC LINE " " "		

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line		Corresponding Freeboard
TROPICAL FRESH WATER Timber line above L.S.		
FRESH WATER " " " "		
TROPICAL " " " "		
WINTER " " below "		
WINTER NORTH ATLANTIC " " " "		

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

William Gray
Chief Surveyor

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

on the 7th May, 1947

[Signature]
Secretary

COMPUTATION OF FREEBOARD

Length on summer load line $140'-5''$ Moulded Breadth $27'-0''$ Moulded Depth $10'-6''$ Depth of Keel $.80$.
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 683 . Tons
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7063$.
 Displacement and tons per inch immersion in salt water at summer load line $666 @ 7.51$.
 Moulded depth 10.500 . Deduction for Fresh Water $\frac{\Delta}{40T} =$ inches
 Stringer Plate $\frac{5}{16}$. Round of Beam Correction
 Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ Ships Round of Beam 0.00 inches
 Rise of floor (in sailers) Standard Round of Beam $\frac{B \times 12}{50} = \frac{6.48}{6.48}$.
 Depth for Freeboard (D) 10.526 . Difference
 Table Depth $\frac{4}{15}$. Restricted to
 Depth Correction $\frac{4}{120}$. Correction $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = 1.62 \times .2359$
 If restricted by superstructures 1.258 on. $= .382 \text{ on.}$

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	50'-5"	28'-0"	7'-0"	78.42	-	64.42
Raised Quarter Deck						
Bridge		F				
		A				
Forecastle	23'-9"	34'-3"	7'-0"	58.00		40.88
Trunk Aft						
" Forward						
Tonnage Opening Aft	4'-0"			4.00 x 5		2.00
" " Forward						
Totals				140.42		107.30

Standard Height of Superstructure $6'-0''$
 " " R.Q.D.
 Percentage covered S/L = 100%
 " " E/L = 76.41%
 " from Table line A, B, (corrected for absence of forecastle if required) 70.88% .
 Percentage from Table by interpolation for Bridge less than .2L if required =
 Deduction = $20.042 \times .7088 = 14.210 \text{ OFF}$
 Percentage from Table for Tankers (or Timber ships) =
 Deduction =

SHELTER DECK LEVEL. FRS 24-56.

12" EXCESS TWIN DEK HT. STATION	ACTUAL SHEER	STANDARD SHEER	EFFECTIVE SHEER EQUIV.	S.M.	PRODUCT
28 A.P.	1'-4"	24.04	24.04	1	24.04
12.44 1/2 L from A.P.		10.70	10.70	4	42.80
3.11 1/2 L from A.P.		2.64	2.64	4	5.28
- Amidships		-	-		-
3.84 1/2 L from F.P.		5.29	3.89	2	7.78
15.56 1/2 L " "		21.40	15.56	4	62.24
34.98 F.P.	2'-8"	48.08	34.98	1	34.98
				18	117.12
Effective Mean Sheer =					9.840
Standard " " .05L + 5 =					12.020
Difference =					2.180

Mean Actual sheer aft = $\frac{\text{Mean Actual sheer aft}}{\text{Standard " "}} = \text{MORE THAN 1}$.
 Mean Actual sheer forward = $\frac{\text{Mean Actual sheer forward}}{\text{Standard " "}} = \text{LESS THAN 1 (72.84\%)}$.
 Length of enclosed superstructure forward of amidships =
 Length of Ship
 Length of enclosed superstructure aft of amidships =
 Length of Ship
 Sheer Correction = Difference $\times \left(75 - \frac{S}{2L}\right) = 2.180 \times .251 = .545 \text{ ON}$
 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 = 14.25 .

Correction for co-efficient = $\frac{1.3863}{1.26} = 14.53$.

	+	-	
Depth correction	1.26		
Deduction for superstructures		14.21	
Sheer correction	.54		
Round of Beam correction	.38		
Correction for thickness of deck amidships			
Other corrections, scantlings, etc.			
	2.18	14.21	-12.03

DRAUGHTS AND SEASONAL CORRECTIONS

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet	10.526	
Summer Freeboard in feet	.208	
Moulded Draught (d)	10.318	(d1)
Addition for Keel	.067	
Extreme draught	10'-4 1/2"	10.385
Deduction for Tropical and addition for Winter freeboard $d/4 = 2\frac{1}{2}$ ins.		
Addition for Winter North Atlantic (if required)		
Deduction for Tropical Timber Freeboard $d/4$		
Addition for Winter " " $\frac{d}{3}$		
" " N.A. Timber Freeboard (if required)		

Summer Freeboard in inches $2\frac{1}{2}'' = 2.50$
 Additional allowance for superstructures on
 Timber carrying ships =
 Summer Timber Freeboard in inches =