

Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILED: ^{SM.} ~~BY~~ **EMPIRE SEAHANK** ~~WITH~~ WITHOUT TIMBER DECK CARGO

Nationality **BRITISH** Builders' Name and No. of Ship **RICHARD DWUSTON LTD**

Port of Registry **HULL SINGAPORE** **HULL N: 466**

Official Number **180423.** Owners ~~MINISTRY OF MARITIME TRANSPORT.~~

Gross Tonnage **521.99** (~~MOS~~) **SINGAPORE STRAITS STEAMSHIP CO. LTD.**

Date of Build **MAY. 1945.** Port and Date of survey **HULL DOING CONSTRUCTION.**

Particulars of Classification **BS* (WITH FREEBOARD)** Name of Surveyor **W.J. NOBLE.**

Type of Superstructures **CLOSED SHELTER DECK.** Names of Sister Ships **"SHELT TYPE"**

Trade of Ship

Service Endorsement if any

All Seasons

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (..... wood..... steel)		8'-6 1/2"
TROPICAL FRESH WATER LINE above centre of disc		Corresponding Freeboard
FRESH WATER LINE " " "	2 1/2	8'-4"
TROPICAL LINE " " "	—	" "
WINTER LINE below " "	—	" "
WINTER NORTH ATLANTIC LINE " " "	—	" "

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

See later comparison

Number of years recommended for load line certificate

Date of Issue 12-4-45
Date of Renewal 12-4-50

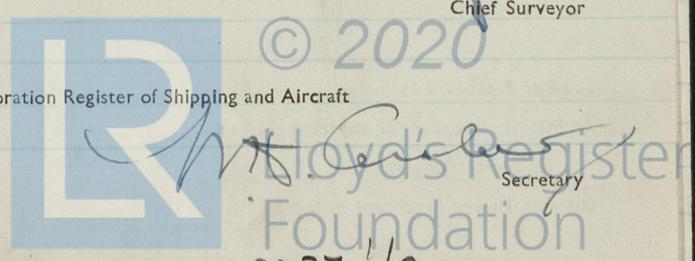
Begin Note

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

[Signature]
Chief Surveyor

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

on the 2nd May, 1945.



THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

CONDITIONS OF ASSIGNMENT

SHIPS NAME *"Empire Sealark"* OFFICIAL NUMBER *180423*
 Nationality and Port of Registry *British, Hull*

COMPUTATION OF FREEBOARD

Length on summer load line *140'-4 3/8"* Moulded Breadth *27'-0"* Moulded Depth *18'-0"* Depth of Keel *1/2"*
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth *1323* Tons S.W. AT *15'-3"*
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7984$
 Displacement and tons per inch immersion in salt water at summer load line *(9'-6") 743 TONS* $\frac{\Delta}{40T} = 2.35 = 2 1/2$ inches
 Moulded depth *18'-000* Deduction for Fresh Water *7.9 TONS* $\frac{\Delta}{40T} = 2.35 = 2 1/2$ inches
 Stringer Plate *1/4"* *.021* Round of Beam Correction *STRAIGHT CAMBER of 6"* inches
 Sheathing on exposed deck T $(\frac{L-S}{L})$ Ships Round of Beam *EQUIVALENT 7.29* inches
 Rise of floor (in sailers) Standard Round of Beam $\frac{B \times 12}{50} = 6.48$
 Depth for Freeboard (D) *18'-021* Difference *81*
 Table Depth *1/15* *9'-358* Restricted to
 Depth Correction *1/30* *8'-663* Correction $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = .2025 \times .8842$
 If restricted by superstructures *9'-35 ON* *= .179 OFF*

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop						
Raised Quarter Deck						
Bridge <i>OPEN</i>	<i>32'-6"</i>	F	<i>7'-0"</i>	<i>32.5</i>	<i>x .50</i>	<i>16.25</i>
		A				
Forecastle						
Trunk Aft						
" Forward						
Tonnage Opening Aft						
" Forward						
Totals				<i>32.5</i>		<i>16.25</i>

Standard Height of Superstructure *6'-0"*
 " " R.Q.D.
 Percentage covered S/L = *23.16%*
 " " E/L = *11.58%*
 " from Table line A, B, (corrected for absence of forecastle if required) *1.67%*
 Percentage from Table by interpolation for Bridge less than .2L if required = *1.67%*
 Deduction = *20.04 x .0167 = .3347 OFF*
 Percentage from Table for Tankers (or Timber ships) =
 Deduction =

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "								
Forecastle Bulkhead								
Trunk, Aft								
" Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks	<i>18" x 28"</i>	<i>.25"</i>	<i>5" x 3/8"</i>	<i>1'-9"</i>	<i>BKTS. AT TOP WELDED AT BOTTOM</i>	<i>1-2'-6" x 2'-6" 7/8"</i>	<i>42"</i>	<i>4'-5 3/4"</i>
Exposed Machinery Casings on superstructure decks								
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances								
Deckhouses on flush deck ships	<i>18" x 28"</i>	<i>.25"</i>	<i>4" x 5/8"</i>	<i>1'-9"</i>	<i>WELDED STRAPS AT TOP</i>	<i>1-2'-0" x 1'-6" 7/8"</i>	<i>42"</i>	<i>4'-2 3/4"</i>

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual sheer aft	Mean Actual sheer forward
A.P.				1		<i>= LESS THAN 1.</i>	<i>= LESS THAN 1.</i>
1/2 L from A.P.				4			
1/2 L from A.P.				2			
Amidships				4			
1/2 L from F.P.				2			
1/2 L " "				4			
F.P.				1			
				18			
Effective Mean Sheer							
Standard " " .05L + 5					<i>12.02</i>		
Difference					<i>12.02</i>		

Sheer Correction = Difference $\times (75 - \frac{S}{2L}) = 12.02 \times .6342 = 7.623 ON$
 If limited on account of midship superstructure =
 " to maximum allowance of 1 1/2 ins. per 100 ft. =

TABULAR FREEBOARD corrected for flush deck if required = *14'-25"*

Correction for co-efficient = $\frac{1.478}{136} = .0108$ DRAUGHTS AND SEASONAL CORRECTIONS = *15'-49"*

	+	-	Sailers, Tankers, Steamer	Timber
Depth correction	<i>9.35</i>			
Deduction for superstructures		<i>.33</i>		
Sheer correction	<i>7.62</i>			
Round of Beam correction		<i>.18</i>		
Correction for thickness of deck amidships				
Other corrections, scantlings, etc. <i>LOW MATCH COAMING ETC.</i>	<i>70.55</i>			
	<i>81.52</i>	<i>.51</i>	<i>87.01</i>	
Summer Freeboard in inches	<i>8'-6 1/2"</i>		<i>= 102.50</i>	
Additional allowance for superstructures on Timber carrying ships				
Summer Timber Freeboard in inches				

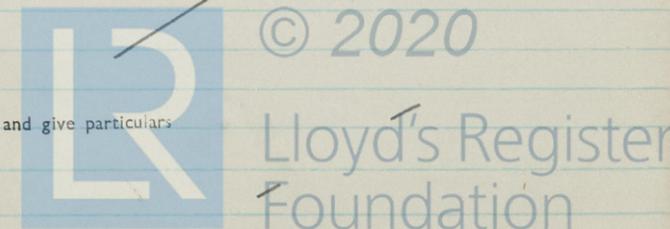
Depth to Freeboard Deck in feet *18'-021*
 Summer Freeboard in feet *8'-542*
 Moulded Draught (d) *9'-479* (d1)
 Addition for Keel *.042*
 Extreme draught *9'-6 1/4"* *9'-521*
 Deduction for Tropical and addition for Winter freeboard $d/4 =$ ins.
 Addition for Winter North Atlantic (if required) = ins.
 Deduction for Tropical Timber Freeboard $\frac{d1}{d} =$ ins.
 Addition for Winter " " $\frac{d1}{3} =$ ins.
 " " N.A. Timber Freeboard (if required) = ins.

PARTICULARS OF CLOSING APPLIANCES (state if capable of being manipulated from both sides)

Poop Bulkhead	
R.Q.D. "	
Bridge Aft Bulkhead	
" Forward "	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or R.Q. decks	<i>Steel doors operated both sides.</i>
Exposed Machinery Casings on superstructure decks	
Machinery Casings within superstructures not fitted with Cl. 1 Closing Appliances	
Deck houses on Flush Deck ships	<i>Steel doors operated both sides.</i>

PARTICULARS OF FREEING ARRANGEMENTS

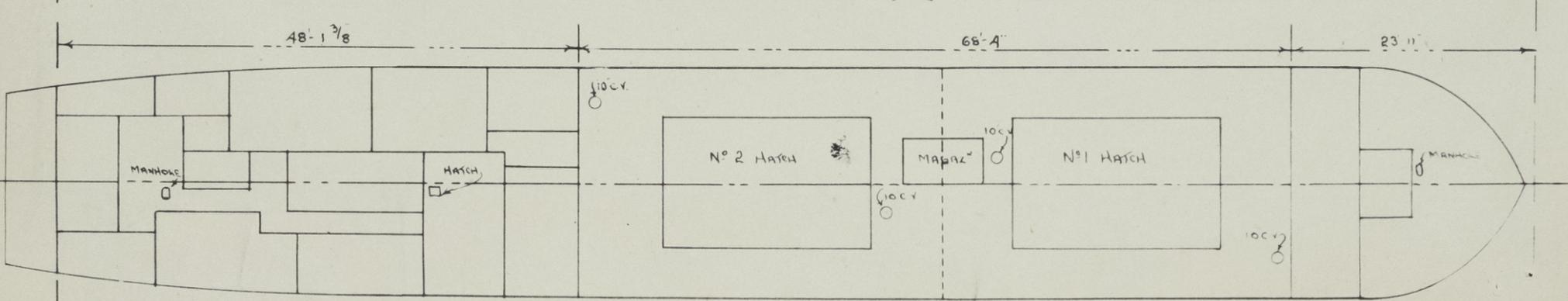
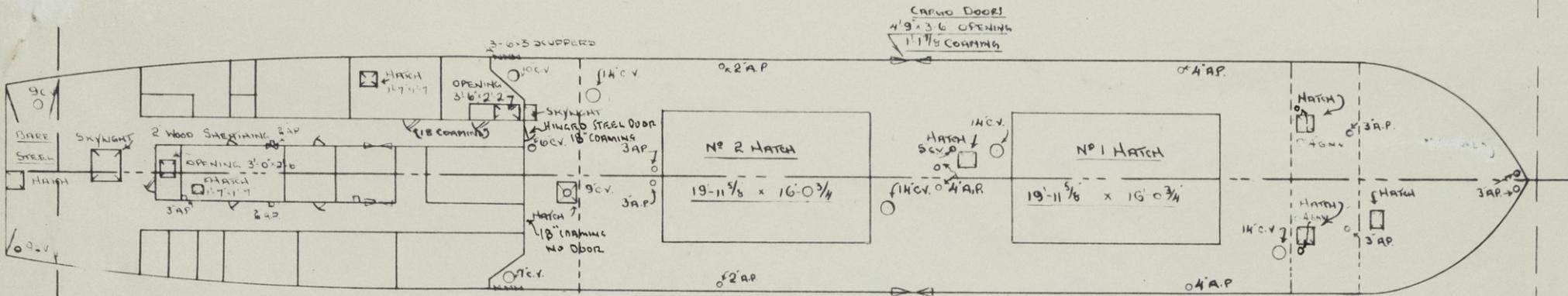
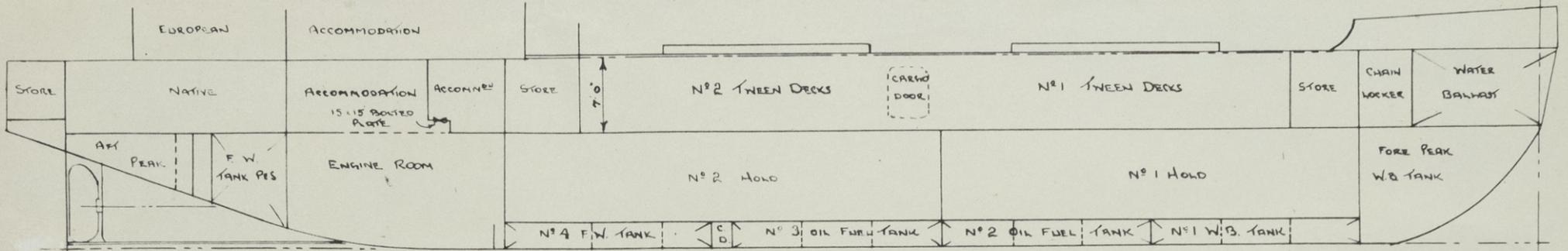
	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well					
Forward Well					
State fore and aft position and height above deck to bottom of port, for each port					
After Well					
Forward Well					
State whether freeing ports are fitted with shutters, bars or rails, and give particulars					
Give particulars of freeing port area, etc., on superstructure decks					



As this vessel is less than 250'-0" in length
the Freeboard Report has not been compared with the
approved plans.

519

OPENING
3'-6" x 2'-2"



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	FORE PEAK		2 - FORE STORE		NO. 1 CARGO		HATCH TO		NO. 2 CARGO		PROVISION STORE		AFTER STORE	
	STORE	HATCH	HATCHES		HATCH		MAGAZINE		HATCH		HATCH		HATCH	
Dimensions of Hatchway	1'-9" x 2'-3"	2'-7" x 2'-2 1/2"	19'-11 5/8" x 16'-0 3/4"		2'-1" x 1'-10"		19'-11 5/8" x 16'-0 3/4"		2'-6" x 2'-6"		1'-9 3/8" x 2'-0"			
COAMINGS	Height above steel deck		2'-0"		10"		1'-6"		10"		1'-6"		1'-6"	
	Thickness sides		3/8"		1/2"		3/8"		1/2"		3/8"		3/8"	
HATCH BEAMS	Stiffeners													
	Brackets or Stays													
FORE AND AFTERS	Number				2				2					
	Spacing				6'-7 7/8"				6'-7 7/8"					
HATCH COVERS	Scantling and Sketch				10" x 6" x 40 LBS R.S.J.				10" x 6" x 40 LBS R.S.J.					
	Bearing Surface and thickness of carriers or sockets													
HATCH COVERS	Number													
	Spacing													
HATCH COVERS	Unsupported lengths													
	Scantling and Sketch													
HATCH COVERS	Bearing Surface and thickness of carriers or sockets													
	Material		STEEL		WOOD		STEEL		WOOD		STEEL		STEEL	
HATCH COVERS	Thickness		3/8"		2 7/8"		3/8"		2 7/8"		3/8"		3/8"	
	How Fitted				F. & A.				F. & A.					
HATCH COVERS	Bearing Surface		1" x 1" GREASY HEMP		3"		1" x 1" GREASY HEMP		3"		1" x 1" GREASY HEMP		1" x 1" GREASY HEMP	
	Spacing of Cleats		1 DOG EACH SIDE		1'-10 3/4"		1 DOG EACH SIDE		1'-10 3/4"		1 DOG EACH SIDE		1 DOG EACH SIDE	
Number of Tarpaulins				2				2						



Are tarpaulins in good condition and in accordance with rule requirements? **YES**

Are wood fore and afters steel shod at all bearing surfaces? **YES**

Are lashings provided in accordance with rule requirements? **YES**

Are battens and wedges efficient and in good condition? **YES**

b/t

6/11

