

Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF
SHIPPING AND AIRCRAFT

"SEREMBAN" SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER: ^{SM.} ~~EMPIRE~~ **SEA HANK** ~~WITH~~ ^{WITHOUT} TIMBER DECK CARGO

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

Port of Registry **HULL SINGAPORE** **HESLE** **N° 466**

Official Number **180423** Owners ~~WINDSTEDT & KAG TRANSPORT~~

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

Date of Build **MAY. 1945** Port and Date of survey **HULL DOZING 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)

TROPICAL FRESH WATER LINE above centre of disc

Corresponding Freeboard

FRESH WATER LINE " " "

2 1/2

8'-6 1/2"

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 " " " "

Number of years recommended for load line certificate

Date of Issue 13-4-45
Date of Expiry 12-4-50

Logbook Note

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 2nd May, 1945.



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Secretary

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COMPUTATION OF FREEBOARD

Length on summer load line $140' 4\frac{3}{8}"$ Moulded Breadth $27' 0"$ Moulded Depth $18' 0"$ Depth of Keel $\frac{1}{2}"$
 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 $\frac{7.9 \text{ TONS}}{1"} = 7.9$
 Moulded depth 18.000 Deduction for Fresh Water $\frac{\Delta}{40T} = 2.35 = 2\frac{1}{2}"$ inches
 Stringer Plate $\frac{1}{4}"$.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 $\frac{1}{15}$ 9.358 Restricted to
 Depth Correction $\frac{1}{130}$ 8.663 Correction $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = .2025 \times .8842$
 If restricted by superstructures $= .179 \text{ OFF}$

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop						
Raised Quarter Deck						
Bridge ORIGIN	32.6	F	7.0	32.5	x.50	16.25
		A				
Forecastle						
Trunk Aft						
„ Forward						
Tonnage Opening Aft						
„ „ Forward						
Totals	32.5					16.25

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 = $20.04 \times .0167 = .3347 \text{ OFF}$
 Percentage from Table for Tankers (or Timber ships) =
 Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.				1	
$\frac{1}{8}$ L from A.P.				4	
$\frac{1}{8}$ L from A.P.				2	
Amidships				4	
$\frac{1}{8}$ L from F.P.				2	
$\frac{1}{8}$ L „ „				4	
F.P.				1	
				18	
Effective Mean Sheer					
Standard „ „ .05L + 5					
Difference					

Mean Actual sheer aft = LESS THAN 1.
 „ Standard „ „
 Mean Actual sheer forward = LESS THAN 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 $\times (75 - \frac{S}{2L}) = 12.02 \times .6342$
 = 7.623 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 = $\frac{1.418}{136} = .0104$ = $15' 49"$ DRAUGHTS AND SEASONAL CORRECTIONS

	+	-		Sailers, Tankers, Steamer	Timber
Depth correction	9.35				
Deduction for superstructures		.33			
Sheer correction	7.62				
Round of Beam correction		.18			
Correction for thickness of deck amidships					
Other corrections, scantlings, etc. LOW MATCH COAMING ETC.	70.55				
	81.52	.51	87.01		
Summer Freeboard in inches	8' 6 $\frac{1}{2}"$		102.50		
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			9.521		
Deduction for Tropical and addition for Winter freeboard $d/4 =$					ins.
Addition for Winter North Atlantic (if required)					ins.
Deduction for Tropical Timber Freeboard $\frac{d}{4}$					ins.
Addition for Winter „ „ $\frac{d}{3}$					ins.
„ „ N.A. Timber Freeboard (if required)					ins.

Form LL. 4.D.

 THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT
 SURVEY FOR FREEBOARD
 CONDITIONS OF ASSIGNMENT

SHIPS NAME "Empire Seahawk" OFFICIAL NUMBER 180423
 Nationality and Port of Registry British, Hull.

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

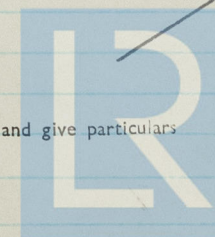
	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
R.Q.D. „								
Bridge Aft Bulkhead								
„ Forward „								
Forecastle Bulkhead								
Trunk, Aft								
„ Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks	18" x 28"	.25"	5" x 3 $\frac{3}{8}"$ O.A.	1'-9"	BXTS. AT TOP WEDED AT BOTTOM	1-2'-6" x 2'-6" 7/8 1-4'-11" x 1'-10" 3/8	42" 18"	4'-5 $\frac{3}{4}"$
Exposed Machinery Casings on superstructure decks								
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances								
Deckhouses on flush deck ships	18" x 28"	.25"	4" x 5/6"	1'-9"	WEDED STRAIGHT TOP	1-2'-0" x 1'-6" 7/8 1-4'-11" x 1'-10" 3/8	42" 18"	4'-2 $\frac{3}{4}"$

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	Steel doors operated both sides.
Exposed Machinery Casings on superstructure decks	
Machinery Casings within superstructures not fitted with Cl. 1 Closing Appliances	
Deck houses on Flush Deck ships	Steel doors operated both sides.

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			See sketch.		
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					



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

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

Give full particulars of the following:—

Fiddley, Funnel and Vent Coamings, Engine Room skylight and other openings in Machinery Casings tops and their means of closing (state height of coamings, type of fiddley covers, and if these are permanently attached in their proper positions)

1-16" dia. M. vent 2'-0" coaming welded to casing top canvas cover.
2-8" dia. cowl vent 2'-6" " " " " wood plugs + canvas covers.
E.R. skylight steel flaps. no bullseyes.

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

None.

Companionways on freeboard and superstructure decks (state material, height of doorway sills, type of doors, and if these can be closed and secured from both sides)

Companion to D.E.M.S. accommodation port side wood door operated both sides opening 4'-11" x 2'-0" 18" coaming.
Entrance to escape hatch in European gallery P+S. steel door operated both sides opening 4'-11" x 1'-10" 18" coaming.
Companion to native accommodation aft end of deck house wood door operated both sides. Opening 4'-11" x 2'-0" 18" coaming.

Ventilators in exposed positions on freeboard, raised quarter and superstructure decks to spaces below freeboard decks and fully enclosed superstructures enclosed by Class 1 appliances (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements)

Ventilators from Forward.

1-4" dia. G.N. vent P+S.	2'-6" coaming welded to deck.	Wood plugs + canvas covers.
1-14" " cowl " starbd.	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-14" " " " port	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-14" " " " " " "	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-5" " " " " " "	2'-4" " " " " " " " " " "	" " " " " " " " " "
1-9" " " " " " "	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-6" " " " " " "	2'-5" " " " " " " " " " "	" " " " " " " " " "
1-10" " " " " " "	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-7" " " " " " "	2'-5" " " " " " " " " " "	" " " " " " " " " "
1-9" " " " " " "	2'-6" " " " " " " " " " "	" " " " " " " " " "
1-9" " M. " starbd.	2'-6" " " " " " " " " " "	" " " " " " " " " "

Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided)

Airpipes from Forward.

1-3" AP. port + starbd.	2'-2" to opening.	Wood plugs + canvas covers.
1-3" " " " "	2'-3" " " " " " " " " " "	" " " " " " " " " "
1-4" " " " " "	2'-3" " " " " " " " " " "	" " " " " " " " " "
1-4" " " " " "	2'-2" " " " " " " " " " "	" " " " " " " " " "
1-2" " " " " "	2'-4" " " " " " " " " " "	Wood plugs + canvas covers.
1-3" " " " " "	2'-3" " " " " " " " " " "	" " " " " " " " " "
1-2" " " " " "	1'-9" " " " " " " " " " "	" " " " " " " " " "
1-3" " " " " "	1'-8" " " " " " " " " " "	" " " " " " " " " "

Scuppers and Sanitary Discharge Pipes (state material, type and number of valves)

Port Side.

2-4" G.M. storm valve angle type above 2nd deck - from spaces above freeboard deck.
1-3 1/2" " " valve " " " " " " " " " "
1-3 1/2" " " straight " " " " " " " " " "
1-2" " " " " " " " " " " " " " "
4-1 1/2" scuppers led to bilges from 'tween deck spaces.

Starboard Side.

1-5" G.M. storm valve angle type above 2nd deck with valve in line - from spaces above + below 3rd deck.
1-4" " " straight " " " " " " " " " "
1-2" " " " " " " " " " " " " " "
3-1 1/2" scuppers led to bilges from 'tween deck spaces.

Side Scuttles to spaces below freeboard and superstructure decks (state type or pattern, and if permanent or portable deadlights are supplied)

10" dia. side scuttles with G.M. frames and permanent M.C. deadlights.

Vertical distance of sill of lowest side scuttle below top of freeboard deck at side amidships

2'-2"

Guard Rails on freeboard and superstructure decks (state type and where fitted)

5" x 2 1/2" x 1/4" angle stanchions 3'-3" high fitted on upper deck P+S. from Ft. 34, fwd. to Ft. 26 aft and from aft end of upper deck to frame 4 upper rail 1" dia. 2 lower rails 1/2" dia.

Gangways and Lifelines

1 1/2" G.F.S.W.R. and collapsible stanchions fitted around hatches.
1 1/2" " " " " " " " " " " " " " "

Gangway, Cargo and Coaling Ports in sides of ship

1 steel cargo door P+S. in 'tween deck. 4'-9" x 3'-6" 1'-1 7/8" coaming.

SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructure and Machinery Casings comply with rules?

Is provision made for protection of steering gear?

Is emergency steering gear provided?

Are efficient sockets and eyes for lashings provided and properly spaced?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Particulars of any Special Features in the construction of the Ship

Endorsement at first survey and at surveys for Renewal of Certificate:—

The fittings and appliances are in accordance with the particulars shown in the form and are in good condition



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