

# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD

1178.

STEAMER, TANKER, SAILER TUNG SONG ~~WITH~~ WITHOUT TIMBER DECK CARGO

Nationality British Builders' Name and No. of Ship Yakon Dockyard & Eng'g.

Port of Registry Singapore Co., of Hong Kong Ltd., No. 239. & subsequently registered by the Singapore Harbour Board.

Official Number 132317 Owners Straits Steamship Co., Ltd. S'pore.

Gross Tonnage 548.63. Port and Date of Survey Singapore 20/3/36 to 13/4/36.

Date of Build 1928 Name of Surveyor P. A. Anderson.

Particulars of Classification unclassified Names of Sister Ships none

Type of Superstructures Complete Superstructure Vessel with middle line opening aft.

Give full particulars of the following:—

Fiddle and Funnel Coamings (state height of coamings, type of fiddle covers, and if these are permanently attached in their proper positions)

No funnel coaming. Fiddle coamings:— 8 1/2" high, permanently covered. E.R. Skylight coaming:— 12" high, with hinged steel covers.

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment) none

### STAIRWAYS &

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)

Stairway from Shelter Deck:— opening 5'-0" x 2'-4", with 1" wood hinged flaps. Steel companionway on Shelter Deck, forward:— Hinged teak wood doors, can be closed & secured from both sides; doorway sills 18"; plating 25" throughout. Steel tank to tunnel - freeboard etc. - 1 1/2" wood door 5'-6" x 1'-10", can be closed & secured from both sides. Sill 10". Bulkhead plating 20" throughout.

Ventilators in exposed positions on freeboard, raised quarter and superstructure decks (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements) Shelter Dk. aft. 2. Vents. to No. 3. hold, 15" dia., coaming 2'-0" x 7/16", rivet pitch 3 1/4". 1. Vents. to tank, 12" dia., coaming 2'-0" x 7/16", rivet pitch 3". 2. Vents. to crew's accom. 9" dia., coaming 1'-10" x 1/4", rivet pitch 3". 2. Vents. to No. 1. hold, 15" dia., coaming 2'-6" x 1/4", rivet pitch 3 1/2". 2. Vents. to forecabin accom., 10" dia., coaming 3'-0" x 1/4", rivet pitch 3". 1. Vents. to No. 1. hold, 15" dia., coaming 3'-0" x 3/8", rivet pitch 3 1/4". All Ventilators supplied with wood plugs and canvas covers.

Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided) Shelter Deck. Two airpipes to After Peak 12" high.

One airpipe to Fore Peak 10" high. Two airpipes to D.B. Tanks (P & S.) 15" high.

Two airpipes to D.B. Tanks (P & S.) 24" high.

All airpipes supplied with wood plugs & canvas covers.

Scuppers and Sanitary Discharge Pipes (state material, type and number of valves) Sanitary discharges all above freeboard dk. & fitted with brass storm valves of approved design.

Scupper Discharge Pipes - freeboard dk. - fitted with brass non-return valves & screwdown valves with spindles extended to Shelter deck. See sketch for number and position.

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

No side scuttles to spaces below freeboard dk.

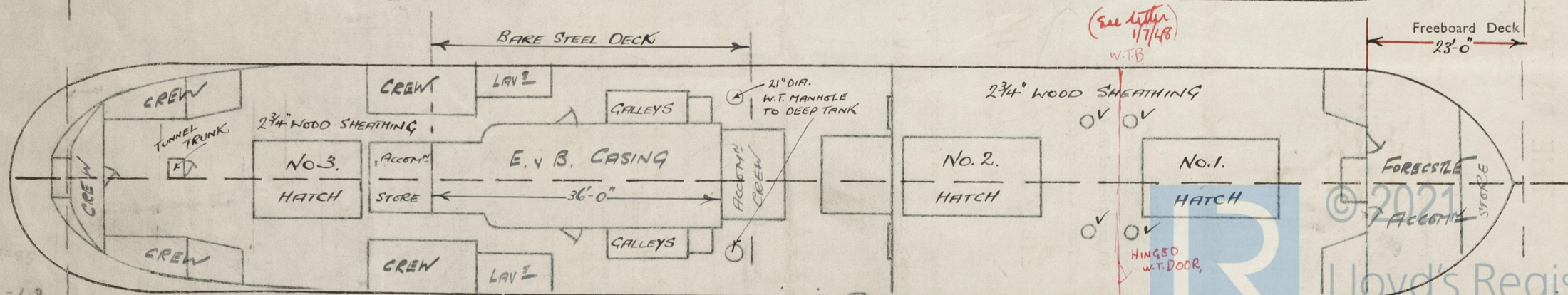
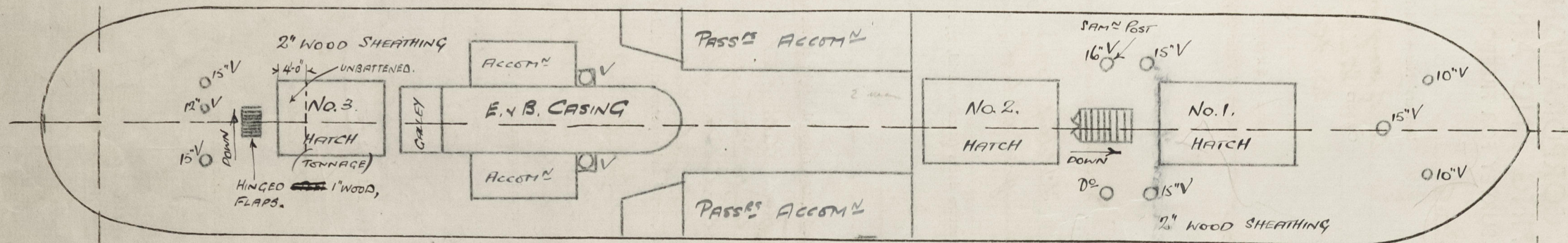
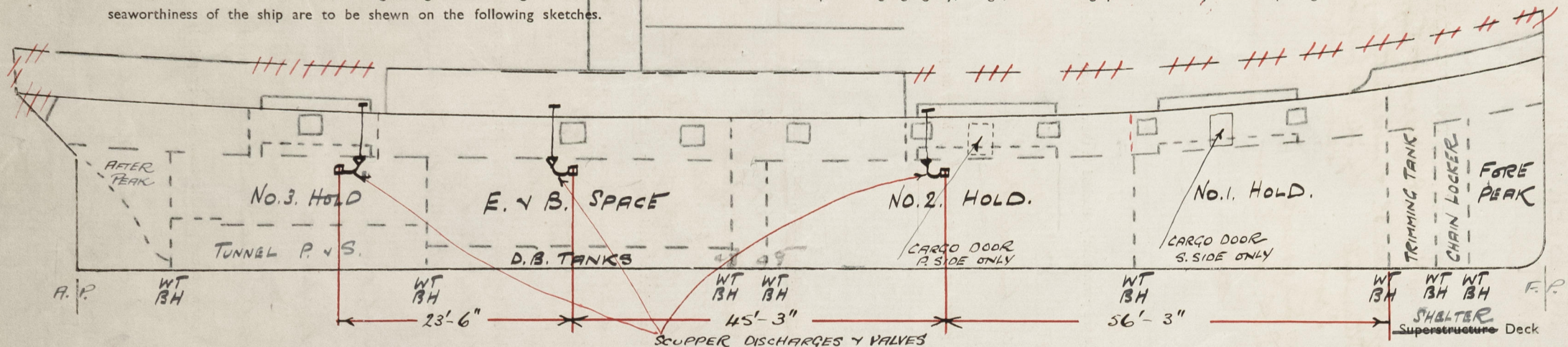
Forecabin side scuttles:— 12" dia. fitted with hinged cast-iron deadlights.

Side scuttles to spaces below Shelter deck:— 12" & 11" dia. & fitted with hinged Guard Rails on freeboard and superstructure decks (state type and where fitted) cast-iron deadlights.

Shelter Deck:— Guard Rails 3'-6" high, with 4 bars.



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatches, extent and thickness of deck sheathing, gangway, cargo, and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches.



Statement of special features in the construction of the ship for details. Ship lengthened by 31'-2", at Singapore 3/36. Special Scupper Discharges from Foreboard Deck see under "Scupper & Sanitary Discharges".



## COMPUTATION OF FREEBOARD.

Length on summer load line  $180'-0"$  Moulded Breadth  $29'-0"$  Moulded Depth  $10'-10\frac{3}{4}"$  Depth of Keel Plate  $45"+40"$   
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth  $1090$  Tons  
 Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times 85} = 17890$   
 Displacement and tons per inch immersion in salt water at summer load line  $1230$  Tons  $11$  tons/inch.  
 Moulded depth  $10'-10\frac{3}{4}"$   $10.896$  Deduction for Fresh Water  $\frac{\Delta}{40T} = 2.79$  inches  
 Stringer Plate  $42"$   $0.035$  Round of Beam Correction  
 Sheathing on exposed deck T  $\left(\frac{L-S}{L}\right) 2\frac{3}{4}"$  wood  $-$  Ships Round of Beam  $7$  inches  
 Rise of floor (in sailers)  $-$  Standard Round of Beam  $\frac{B \times 12}{50} = 6.96$   
 Depth for Freeboard (D)  $10.931$  Difference  $0.004$   
 Table Depth  $12.000$  Restricted to  
 Depth Correction  $460.$  Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) -$   
 If restricted by superstructures

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	22	18	7'-6"	23		17.4
Raised Quarter Deck	5					
Bridge	56					104.5
Forecastle	23-0	5-6	7'-6"	153		46.5
Trunk Aft						
Forward						14.05
Tonnage Opening Aft	4			4		23.55
Forward						150.95
Totals				180		157.45

Standard Height of Superstructure  $6'-0"$   
 " " R.O.D.  
 Percentage covered S/L = 100  
 " " E/L =  $87.4783.45$   
 " from Table line A, B, (corrected for  $84.5628$   
 absence of forecastle if required)  $80.07$   
 Percentage from Table by interpolation for Bridge  
 less than .2L if required =  $1.8007$   $19.22$   
 Deduction =  $24 \times 1.846028 = 30.29$   
 Percentage from Table for Tankers (or Timber ships) =  
 Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	19"	28.0	15	1	15
1/2 L from A.P.	4"	11.46	0	4	0
1/2 L from A.P.	0"	3.08	4	2	-8
Amidships	4"	0	0	4	0
1/2 L from F.P.	8"	6.16	4	2	8
1/2 L	18"	24.92	14	4	56
F.P.	41"	56.0	37	1	37
				18	108

Effective Mean Sheer =  $6$   
 Standard " " .05L =  $14$   
 Difference =  $8$

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  $\times \left(75 - \frac{S}{2L}\right) = 8 \times 25 = 2" \text{ or } 2"$

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 =  $19.8$

Correction for co-efficient =  $1.469 \times 1.36 = 2.39$

Depth correction  
 Deduction for superstructures  
 Sheer correction  
 Round of Beam correction  
 Correction for thickness of deck amidships  
 Other corrections, scantlings, etc.

$19.82$   
 $20.89$   
 $2"$   
 $2.75$   
 $4.90$   
 $9.65$   
 $10.64$

## DRAUGHTS AND SEASONAL CORRECTIONS

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet	11.160	
Summer Freeboard in feet	0.896	
Moulded Draught (d)	10.264	(d1.)
Addition for Keel		
Extreme draught		
Deduction for Tropical and addition for Winter freeboard $d/4 = 2.665$		
Addition for Winter North Atlantic (if required)		
Deduction for Tropical Timber Freeboard $\frac{d}{4}$		
Addition for Winter " $\frac{d}{4}$		
" " N.A. Timber Freeboard (if required)		

Summer Freeboard in inches =  $10.75$   
 Additional allowance for superstructures on  
 Timber carrying ships  
 Summer Timber Freeboard in inches =

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SERVICE ENDORSEMENT :- AND ONLY SO LONG AS THE SHIP IS BETWEEN PORTS IN THE EAST INDIAN ARCHIPELAGO.

ALL SEASONS

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, ( $2\frac{3}{4}$  wood ~~steel~~)

TROPICAL FRESH WATER LINE above centre of disc

Corresponding Freeboard

FRESH WATER LINE " " "

$2\frac{3}{4}$

8"

TROPICAL LINE " " "

WINTER LINE below " "

WINTER NORTH ATLANTIC LINE " " "

SUMMER TIMBER FREEBOARD recommended amidships from centre of disc to top of deck line

TROPICAL FRESH WATER Timber line above centre of disc

Corresponding Freeboard

FRESH WATER " " " " "

TROPICAL " " " " "

WINTER " " below " "

WINTER NORTH ATLANTIC " " " " "

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
<del>Deck</del> Bulkhead TO CREW'S ACCOMM. AFT FREEBOARD DK.	.20"	.20"	Angles $2\frac{1}{2}" \times 2\frac{1}{4}" \times \frac{1}{4}"$	5'-2"	nil	one door $5'-4" \times 2'-0"$	10"	7'-6"
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "	.32"	.28"	B.F. $5\frac{1}{2}" \times 3" \times 4"$	2'-6"	Lugs	Two openings $6'-9" \times 4'-0"$	no sill	7'-6"
Forecastle Bulkhead	.25"	.25"	Stiffened by deck house bulkheads			Two doors $5'-4" \times 2'-2"$	10"	7'-6"
Trunk, Aft								
" Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks								
Exposed Machinery Casings on superstructure decks	.32"	.24"	Angles $2" \times 2" \times \frac{1}{4}"$	2'-3"	Brackets $15" \times \frac{1}{4}"$	one door $5'-6" \times 2'-0"$	11"	7'-3"
Machinery Casings within Superstructures not fitted with Cl. 1. closing appliances FREEBOARD DK.	.32"	.24"	Angles $2" \times 2" \times \frac{1}{4}"$	2'-9"	nil	Two doors $5'-3" \times 2'-0"$	12"	7'-6"
Deckhouses on flush deck ships								

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

<del>Deck</del> Bulkhead TO CREW'S ACCOMM. AFT FREEBOARD DK.	Light teakwood door, can be manipulated from both sides
R.Q.D. "	
Bridge Aft Bulkhead	
" Forward "	Tonnage boards only, $2\frac{1}{2}"$ thick.
Forecastle Bulkhead	Light teakwood, hinged, door, can be manipulated from both sides
Exposed Machinery Casings on Freeboard or R.Q. decks	
Exposed Machinery Casings on superstructure decks	Steel, hinged, door; can be manipulated from both sides.
Machinery Casings within superstructures not fitted with Cl. 1. Closing Appliances	Steel, hinged, doors; can be manipulated from both sides.
Deck houses on Flush Deck ships	

PARTICULARS OF FREEING ARRANGEMENTS

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	Special Scupper Discharges from Freeboard DK. see under:- "Scupper & Sanitary Discharge Pipes"				
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



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# PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward		No. 1. Hatch	No. 2. Hatch	No. 3. Hatch	No. 1. Hatch	No. 2. Hatch	No. 3. Hatch (Yonnage Hatch)
Dimensions of Hatchway		16'-6" x 9'-6"	16'-6" x 9'-6"	12'-10" x 9'-2"	16'-6" x 9'-6"	16'-6" x 9'-6"	12'-10" x 9'-2"
COAMINGS	Height above wood { deck	9"	9" 5 1/2"	9"	24"	18"	12"
	Thickness { sides ends	.44"	.35"	.44"	.35"	.35"	.44"
	Stiffeners	Tygate section	7x3x3 channel hatch rests & ext. beam sockets.	Tygate section	hatch rests & extended beam sockets	nil	nil
	Brackets or Stays	nil	nil	nil	nil	nil	nil
HATCH BEAMS	Number	2	2	2	2	2	2
	Spacing	5'-6"	5'-6" 8'-3"	4'-3"	5'-6"	5'-6"	4'-3"
	Scantling and Sketch	Welded flat plates	7x3x3 channel similar to No. 1.				Similar to No. 2.
	Bearing Surface and thickness of carriers or sockets	3" x 7/20"	3" x 7/20"	3" x 7/20"	3" x 7/20"	3" x 7/20"	3" x 7/20"
FORE AND AFTERS	Number						
	Spacing						
	Unsupported lengths						
	Scantling and Sketch						
HATCH COVERS	Bearing Surface and thickness of carriers or sockets						
	Material	Wood	Wood	Wood	Wood	Wood	Wood
	Thickness	2 1/2"	2 1/2" 1/4"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	How Fitted	Fore & Aft	Fore & Aft	Fore & Aft	Fore & Aft	Fore & Aft	Fore & Aft
HATCH COVERS	Bearing Surface	2 1/2"	2 1/2"	2 1/2"	2 1/2"-3"	2 1/2"-3"	2 1/2"-3"
	Spacing of Cleats	24"	24"	24"	24"	24"	24"
	Number of Tarpaulins	2	2	2	2	2	2

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

Are battens and wedges efficient and in good condition?

Are tarpaulins in good condition and in accordance with rule requirements

Are lashings provided in accordance with rule requirements?

yes

yes

yes.

[Surveyors are to note that wood fore and afters are to be steel shod at all bearing surfaces.]



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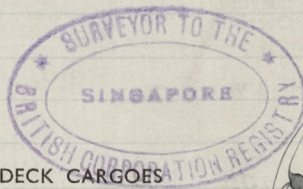
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Gangways and Lifelines

*As required.*

Gangway, Cargo and Coaling Ports in sides of ship

*Cargo doors:- 5'-0" x 3'-0", hinged, stiffened, and secured by strong dogs.**Side Vent Openings:- 2'-10" x 2'-0" + 3'-0" x 2'-0" fitted with hinged watertight doors, secured by strong dogs.*

SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructures and Machinery Casings comply with rules?

Is provision made for protection of steering gear, and is emergency steering gear provided?

Are efficient uprights, sockets and lashings provided according to rules?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Approval date of plans and full particulars of arrangements for stowing and securing timber

The scantlings and protective arrangements being in accordance with the Freeboard rules it is submitted that the freeboard be assigned

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

on the

*9<sup>th</sup> September, 1936*

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Chief Surveyor.

Secretary.