

Copy sent to B. O. T. on 23 JUL 1932

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

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LL. 4.C.

STEAMER, ~~TANKER, SAUER~~ "SPERO" S.S. WITHOUT TIMBER DECK CARGO

Nationality *British* Builders' Name and No. of Ship *Dundee S.B. Co. Ltd*

Port of Registry *Hull* N^o 311

Official Number *146509* Owners *Ellerman's Wilson Line, Ltd.*

Gross Tonnage *1589 1580.11* Port and Date of Survey *Hull 4/32*

Date of Build *12/1922* Name of Surveyor *J. M. Connell*

Particulars of Classification *B.S.** Names of Sister Ships

Type of Superstructures *Combined Poop, Bridge with opening aft, and Forecastle.*

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)

Fiddle = 7'-6" above wood dk, hinged 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.

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)

Steel Saloon House sill = 16" above wood dk, teak doors fastening from either side and steel weather door fastening from outside only. Steel deck house aft, sill = 22" above wood deck, teak doors fastening from either side.

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)

1 on Deck, 3'-3" nos 3'-2", 2 in fwd well 33" above wood deck, 3 on bridge 2'-2" above wood deck, 2 @ 3'-0" above wood deck, all have wood plugs & canvas covers, remainder are carried up sawson posts & on derrick tables.

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

3'-0" on Poop & bridge sheltered under bulwark, goose-necks 5'-0" in Fwd Well " " " "

~~*No means of closing provided.*~~
Canvas covers provided

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

~~*No piping & Sanitary pipes.*~~ *All valves brass, 1 flap*
All satisfactory in service.

2 scuppers P13 3 1/2 dia in Poop space with non return valves & blanked off with blank flanges cemented over.

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

4 to Deck, 29 to Poop & Bridge. Portable & permanent deadlights supplied. 7 Bridge front light have deadlights fitted outside.

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

Solid bulwarks in F.W. etc. Guard rails & bulwarks alternately on Poop & Bridge.

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COMPUTATION OF FREEBOARD.

Length on summer load line 256.42 Moulded Breadth 37'-0" Moulded Depth 19'-6" Depth of Keel 1 1/2'
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 2910 Tons
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .6476$
 Displacement and tons per inch immersion in salt water at summer load line 3411
 Moulded depth 19.5 Deduction for Fresh Water $\frac{\Delta}{40T} = \frac{3411}{40 \times 18.8} = 4.536$ inches
 Stringer Plate .36 Round of Beam Correction 9 inches
 Sheathing on exposed deck T $(\frac{L-S}{L})$.03 Ships Round of Beam 9 inches
 Rise of floor (in sailers) .058 Standard Round of Beam $\frac{B \times 12}{50} = \frac{37 \times 12}{50} = 8.88$
 Depth for Freeboard (D) 19.588 Difference .12
 Table Depth 17.095 Restricted to
 Depth Correction $\frac{256.42}{130} \times 2.493 = 4.917$ Correction $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = \frac{.12}{4} \times (1 - \frac{17.095}{256.42}) = .0094$
 If restricted by superstructures

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	
Poop	20.54	-	7'-6"	20.54		20.54	Standard Height of Superstructure <u>8.864</u>
Raised Quarter Deck	174.54	F		174.54			" " R.Q.D.
Bridge	42.0	A 94.0	7'-6"	136		112.5	Percentage covered S/L = <u>76.70</u>
Forecastle	21.88	.25	7'-6"	22.13		22.13	" " E/L = <u>68.62</u>
Trunk Aft							" from Table line A, B, (corrected for absence of forecastle if required) <u>60.654</u>
Forward							Percentage from Table by interpolation for Bridge less than .2L if required =
Tonnage Opening Aft	18			18		20.75	Deduction = $.6065 \times 31.642 = 19.19$
Forward							Percentage from Table for Tankers (or Timber ships)
Totals				196.67		175.92	Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	46	35.64	65.54	1	65.54
1/2 L from A.P.	25.7	15.86	25.7	4	102.8
1/2 L from A.P.	6.1	3.92	6.1	2	12.2
Amidships	0	0	0	4	0
1/2 L from F.P.	8.5	7.84	8.5	2	17
1/2 L	33	31.72	33	4	132
F.P.	84	71.28	84	1	84
				18	413.54

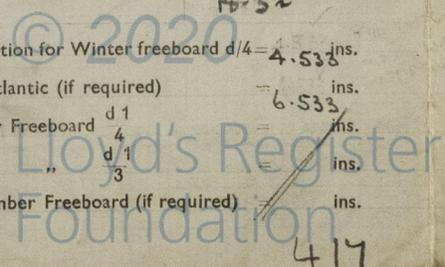
Mean Actual sheer aft = over 1
 " Standard " " =
 Mean Actual sheer forward = over 1
 " Standard " " =
 Length of enclosed superstructure forward of amidships = over .1
 Length of Ship = over .1
 Length of enclosed superstructure aft of amidships = ✓
 Length of Ship =
 Sheer Correction = Difference X $(75 - \frac{S}{2L}) = 5.154 \times .3665 = 1.889$
 If limited on account of midship superstructure =
 " to maximum allowance of 1 1/2 ins. per 100 ft. =

Effective Mean Sheer = 22.974
 Standard " " .05L + 5 = 17.82
 Difference = 5.154

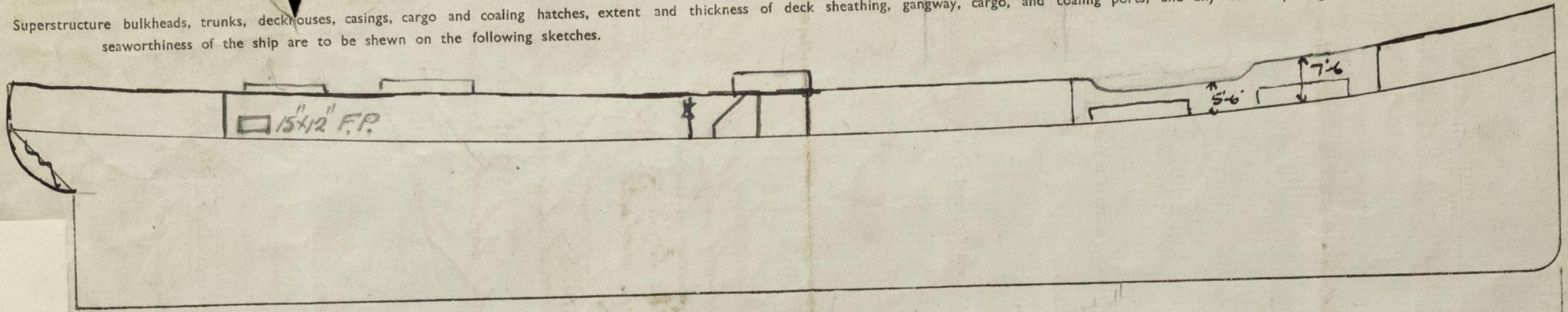
TABULAR FREEBOARD corrected for flush deck if required = 33.648
 Correction for co-efficient =

DRAUGHTS AND SEASONAL CORRECTIONS

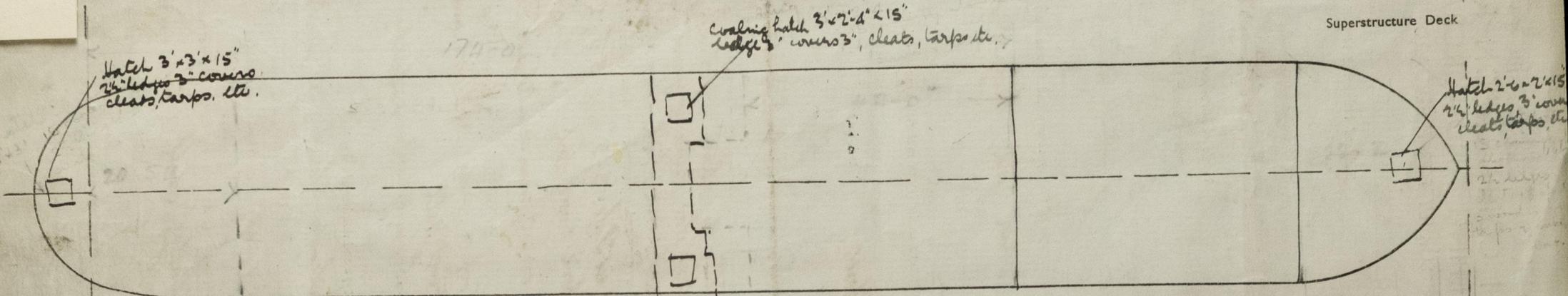
	+	-	Sailer, Tanker, Steamer	Timber
Depth correction	4.92			
Deduction for superstructures		19.19	Depth to Freeboard Deck in feet <u>19.738</u>	
Sheer correction		1.89	Summer Freeboard in feet <u>1.606</u>	
Round of Beam correction		.01	Moulded Draught (d) <u>18.132</u> = 18'-2" at 1'-7" (H.)	
Correction for thickness of deck amidships	1.80		Addition for Keel <u>1/4"</u>	
Other corrections, scantlings, etc.			Extreme draught <u>14'-3 1/2"</u>	
Summer Freeboard in inches = <u>19.278</u>			Deduction for Tropical and addition for Winter freeboard $d/4 = 4.538$ ins.	
Additional allowance for superstructures on Timber carrying ships =			Addition for Winter North Atlantic (if required) = 6.533 ins.	
Summer Timber Freeboard in inches =			Deduction for Tropical Timber Freeboard $\frac{d}{4} = 4.538$ ins.	
			Addition for Winter " " $\frac{d}{3} = 3.025$ ins.	
			" " N.A. Timber Freeboard (if required) = 4.17 ins.	



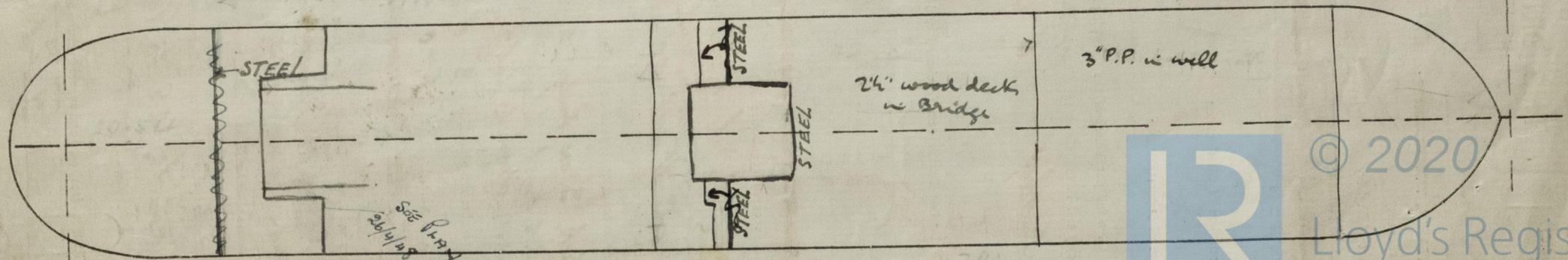
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatches, extent and thickness of deck sheathing, gangway, cargo, and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches.



Superstructure Deck



Freeboard Deck



Statement of special features in the construction of the ship



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Lloyd's Register Foundation

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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. as the sketch is *incomplete*.

G. H. W.

10 OCT 1950

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171-0
deck 3" cleats, tanks etc

"When more than twelve passengers are carried the freeboard of the ship shall be governed by the terms of the passenger certificate"

Assigned 2/15/32

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (2 1/2" wood)	1-7"	- 3 1/2"
TROPICAL FRESH WATER LINE above centre of disc	9" ✓	0-10"
FRESH WATER LINE " " "	4 1/2" ✓	1-2 1/2" - 3 1/2"
TROPICAL LINE " " "	4 1/2" ✓	1-2 1/2" - 5"
WINTER LINE below " " "	5" ✓	2-0" - 1 1/2"
WINTER NORTH ATLANTIC LINE " " "	7" ✓	2-2" - 1 1/2"

SUMMER TIMBER FREEBOARD recommended amidships from centre of disc to top of deck line		
TROPICAL FRESH WATER Timber line above centre of disc		
FRESH WATER " " " " "		
TROPICAL " " " " "		
WINTER " " below " " "		
WINTER NORTH ATLANTIC " " " " "		

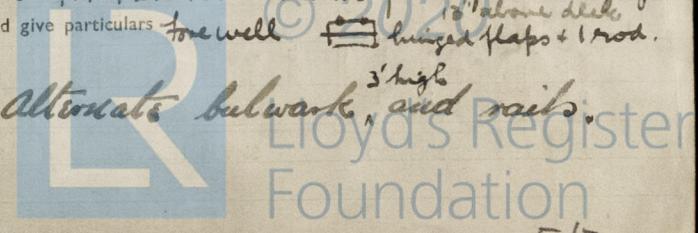
	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	5/16"	3"x3" 5/16"	3'-0"	None	none	-	-
R.Q.D. "								
Bridge Aft Bulkhead	✓	5/16"	1 1/2"x3" 3/8"	3'-0"	None	None	-	-
" Forward "	36	3	7x3x36 BA	27	Batch top & bottom	None	-	-
Forecastle Bulkhead	33	3/32	FIA Chds 4x3x33	30"	✓	1 @ 5'-0" x 4'-0" 19"	-	-
Trunk, Aft								
" Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks								
Exposed Machinery Casings on superstructure decks	44	32	4"x3" 3/32	30"	None	2 @ 4'-6" x 2'-0" 18"	7'-9"	7'-9"
Machinery Casings within Superstructures not fitted with Cl. 1. closing appliances	4	38	4x3x32			1 @ 2'-6" x 2'	14"	7'-6"
Deckhouses on flush deck ships								

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

Poop Bulkhead	No openings Hinged wood door (left), TRM. 24-3-41 NO OPENING.
R.Q.D. "	
Bridge Aft Bulkhead	No openings full height in channels riveted to shell
" Forward "	Hinged steel door NO OPENINGS
Forecastle Bulkhead	Weather boards full height in channels riveted to shell.
Exposed Machinery Casings on Freeboard or R.Q. decks	
Exposed Machinery Casings on superstructure decks	Steel doors opening from either side, spring locks.
Machinery Casings within superstructures not fitted with Cl. 1. Closing Appliances	Hinged steel door fastened by turnbuckle operated either side
Deck houses on Flush Deck ships	

PARTICULARS OF FREEING ARRANGEMENTS

Tonnage	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well			1 @ 15 x 12"		
Forward Well	59-75'	7'-6" at forward 5'-6" abaft N. 1/4 Hds	5 @ 2' x 1'-3"	12.5 sq ft.	12.475 sq ft.
State fore and aft position and height above deck to bottom of port, for each port		Forward Well	4'-6", 10'-6", 17'-1", 27'-1", 32'-7" to centre of each from bridge front 18' above deck		
State whether freeing ports are fitted with shutters, bars or rails, and give particulars		Fore well	hinged flaps + 1 rod.		
Give particulars of freeing port area, etc., on superstructure decks			Alternate bulwark, 3' high, and rails.		



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	Tonnage					TRUNKED		Coal shoot Hatchway	
	1	2	3	4	5	3	4		
Dimensions of Hatchway	upper D ^t 14' x 10'	upper D ^t 24' x 12'	on Bridge 14' x 12'	on Bridge 18' x 12'	on Bridge 18' x 12'	UPPER DK. 14' x 12"	UPPER DK 18' x 12"	UPPER DK 18' x 12'	Casey Cop 4'-6" x 11'-6"
COAMINGS	Height above deck	32"	32"	27"	27"	12"	12"	7"	9' x 3 1/2" x 5 3/4"
	Thickness sides ends	.44	.44	.44	.44	.44	.44	.44	
Stiffeners	7" B.A	7" B.A	7" B.A	7" B.A	None	6.0" Plati 5" Bhd. A 3/8" Bhd. F	8.0" Plati None	7" Plati A.E. Prop Bhd. None	
Brackets or Stays	1 @ 2 1/2" Round	2 @ 2 1/2" Round	None	None	None	None	None	None	
HATCH BEAMS	Number	2	4	2	3	3	2	3	1
	Spacing	4'-8"	4'-9 1/2"	4'-8"	4'-6"	4'-6"	4'-6"	4'-6"	2'-3"
	Scantling and Sketch	11 3/4 x 3 3/4 x 4 12 x 5 10 3/4 x 1 1/2 solid	as No 1	as No 1	as No 1	as No 1	7 1/2 x 3 1/4 x 1 1/2 16 x 5	as No 1	as No 1
Bearing Surface and thickness of carriers or sockets	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	3 1/2 x 1 5/8	
FORE AND AFTERS	Number	None		None		None		None	
	Spacing	None		None		None		None	
	Unsupported lengths	None		None		None		None	
Bearing Surface and thickness of carriers or sockets	None		None		None		None		
HATCH COVERS	Material	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Pine
	Thickness	3"	3"	3"	3"	3"	3"	3"	3"
	How Fitted	F & A	F & A	F & A	F & A	F & A	F & A	F & A	F & A
	Bearing Surface	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"
Spacing of Cleats	2'-0"	2'-0"	2'-0"	2'-0"	None	2'-0"	1'-10"	1'-10"	1'-2"
Number of Tarpaulins	3	3	3	3	3	1	1	1	3

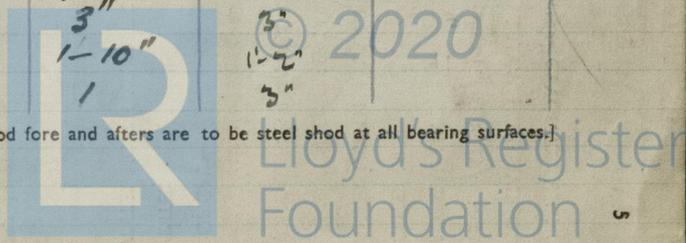
Are wood fore and afters steel shod at all bearing surfaces? [Surveyors are to note that wood fore and afters are to be steel shod at all bearing surfaces.]

Are battens and wedges efficient and in good condition? yrs

Are tarpaulins in good condition and in accordance with rule requirements? yrs

Are lashings provided in accordance with rule requirements? yrs

617



Gangways and Lifelines

None High bulwarks in well

Gangway, Cargo and Coaling Ports in sides of ship

None

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

[Signature] 20

Chief Surveyor.

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

on the

8th June 1932



Lloyd's Register

[Signature]
Secretary.