

LL. 4.C.

THE BRITISH CORPORATION REGISTER OF
SHIPPING AND AIRCRAFT

933

SURVEY FOR FREEBOARD

STEAMER, ~~TANKER~~ SAILER *now "Empress"* MARKLYN S.S. (ex "WAR COMBE") ~~WITH~~ WITHOUT TIMBER DECK CARGO
 Nationality *British* Builders' Name and No. of Ship *Jyne Iron S. B. Co. Ltd*
 Port of Registry *Newport* N° 214
 Official Number *142682* Owners *Merwyn Steam Shipping Co. Ltd.*
 Gross Tonnage *3090* Port and Date of Survey *Middlesbrough*
 Date of Build *10/19/18* Name of Surveyor *John Aitken*
 Particulars of Classification *B.S.* Names of Sister Ships

Type of Superstructures *Poop, Bridge 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)

*Funnel on top of steel casing 48" high ab. bridge deck. Steel fiddle covers perm. attached
 forward fiddle opening on top of casing 7-3 high
 steel covers perm. attached*

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)

*~~Saloon House Steel door fore and aft passage 4'9" x 24" 18" sill Port side
 manipulated both sides, St side permanently closed Cabin door in passage 4'9" x 24" 18" sill
 steel door, manipulated both sides. Two cabins aft and casing solid bulk doors
 4'7" x 25" 18" sill manipulated both sides~~* *none.*

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)

*Poep. 4 @ 9" with 11" coam (above wood) 8 bolts fixing to wood in 2 @ 6" coam 8 bolts fixing to
 Bridge 2. 16" vents 30" coam 3 3/8" dia sp. 3. Small vents 24" coam. 3 3/8" dia / Wells } 16" Vents 30" coam 3 3/8" dia sp.
 all wood plugs remain covers*

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

*2" S.N. on fore funnel 18" high to throat 4 3/4 bolts. } Canvas covers
 2" S.N. air pipe in fore + aft wells 18" to throat 4 3/4 bolts } for closing and wood
 1 S.N. on poop 9" to throat. } plugs supplied for those
 in wells*

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

*Well ducts, collinson type + other thru shell above deck
 Bridge deck scuppers collinson type. Under Bridge deck collinson type no valves, inboard
 into closet with plate + bridge. Sanitary discharges from Bridge accommodation
 closed valve on shell about 24" above upper deck. 3 bath discharges thru shell no valves
 about 24" above upper deck - iron pipes.*

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

*Side scuttles thru poop shell of poop front have deadlights fitted permanent
 " " Bridge " have permanent deadlights fitted
 " " Fore " " "*

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

*Guard rails on Poop 39" high two rods
 " " Bridge 39" " three rods*

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COMPUTATION OF FREEBOARD.

Length on summer load line **331** ✓ Moulded Breadth **46'-6"** Moulded Depth **25'-6"** Depth of Keel
Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth **7246** Tons
Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .76$ ✓
Displacement and tons per inch immersion in salt water at summer load line *not available*
Moulded depth **25.500** ✓ Deduction for Fresh Water $\frac{\Delta}{40T} \times \frac{d}{4} = 5\frac{1}{2}$ inches
Stringer Plate **46"** ✓ Round of Beam Correction
Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ ✓ Ships Round of Beam **11.50** inches
Rise of floor (in sailers) **25.538** ✓ Standard Round of Beam $\frac{B \times 12}{50} = 11.16$ ✓
Depth for Freeboard (D) **22.067** ✓ Difference **.34** ✓
Table Depth $\frac{331}{130} \times 3.471 = 8.837$ ✓ Restricted to Difference $\frac{E}{L} \times \left(1 - \frac{E}{L}\right) = .085 \times .5122 = .0436$ ✓
Depth Correction **51.36 = 0.436** ✓
If restricted by superstructures

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop	32.92		7'-6"	32.92		32.92	" " R.Q.D.
Raised Quarter Deck							Percentage covered S/L = 488 ✓
Bridge	98.00	F 2'-0"	7'-6"	100.0		99.96	" " E/L = 487.8 ✓
Forecastle	28.58		7'-6"	28.58		28.58	" from Table line A, B, (corrected for absence of forecastle if required) 34.96 ✓
Trunk Aft							Percentage from Table by interpolation for Bridge less than .2L if required = 34.844 ✓
" Forward							Deduction = $37.4 \times .3496 = 13.075$ ✓
Tonnage Opening Aft							Percentage from Table for Tankers (or Timber ships) = 68.487 ✓
" " Forward							Deduction = $37.4 \times .68487 = 25.612$ ✓
Totals				161.54		161.40	25.58 ✓

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual shear aft	Mean Actual shear forward
A.P.	51	43.1	51	1	51		
1/2 L from A.P.	22	19.18	22	4	88		
1/2 L from A.P.	5	4.74	5	2	10		
Amidships	0	0	0	4	0		
1/2 L from F.P.	11.25	9.48	11.25	2	22.5		
1/2 L	43.5	38.36	43.5	4	174		
F.P.	102	86.2	102	1	102		
				18	427.5		
Effective Mean Sheer					24.86		
Standard " " .05L x 5					21.55		
Difference					3.31		
Mean Actual shear aft						$\frac{16.5}{14.36}$	
Mean Actual shear forward						$\frac{33.28}{28.72}$	
Length of enclosed superstructure forward of admidships							exceeds .1L
Length of enclosed superstructure aft of amidships							exceeds .1L
Sheer Correction = Difference X $\left(75 - \frac{S}{2L}\right)$							$3.31 \times .506 = 1.675$ ✓
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 = **51.27** ✓
Correction for co-efficient = $\frac{1.44}{1.36} = 1.059$ ✓ = **54.29** ✓

	+	-
Depth correction	8.84	
Deduction for superstructures		13.075
Sheer correction		1.675
Round of Beam correction		.043
Correction for thickness of deck amidships		
Other corrections, scantlings, etc.		
	8.84	14.793

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet	25.538	25.538
Summer Freeboard in feet	4.028	3.983
Moulded Draught (d)	21.510	22.555
Addition for Keel	21.496	22.538 (d1.)
Extreme draught		
Deduction for Tropical and addition for Winter freeboard $d/4 = 5.38$ ins.		
Addition for Winter North Atlantic (if required)		
Deduction for Tropical Timber Freeboard $d/4 = 5.6375$ ins.		
Addition for Winter " $d/4 = 7.518$ ins.		
" " N.A. Timber Freeboard (if required)		

Summer Freeboard in inches $(5 - 4'0\frac{1}{2})$ **48.39** ✓
Additional allowance for superstructures on Timber carrying ships **12.55** ✓
Summer Timber Freeboard in inches **35.84** ✓

assigned 10-5-34
8th.

1906

4

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (wood 46 steel)
TROPICAL FRESH WATER LINE above centre of disc 10 1/2"
FRESH WATER LINE " " " 6"
TROPICAL LINE " " " 4 1/2"
WINTER LINE below " " 4"
WINTER NORTH ATLANTIC LINE " " " —

3'-11 3/4"
3'-1 1/4"
3'-5 3/4"
3'-7 1/4"
4'-3 3/4"

SUMMER TIMBER FREEBOARD recommended amidships from centre of disc to top of deck line (11 3/4")
TROPICAL FRESH WATER Timber line above centre of disc 11 1/2"
FRESH WATER " " " 6"
TROPICAL " " " 5 1/2"
WINTER " " below " 7 1/2"
WINTER NORTH ATLANTIC " " " 15 3/4"

3'-0"
2'-0 1/2"
2'-6"
2'-6 1/2"
3'-7 1/2"
4'-3 3/4"

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	19' x 3/8"	.32	6 x 3 1/2 x 34L	30	none	2 doors 4'-9" x 2'-4" 1 door cu. 5'-0" x 2'-7"	19"	—
R.Q.D. "						2 opening 2 doors 5'-9" x 3'-6"	18	—
Bridge Aft Bulkhead	flat out-	.30	3 1/2 x 3 x 32L	30 to 36	none	1 door 4'-7" x 2'-5"	18	—
" Forward "	.42	.38	8 x 3 x 5 BA	29 x 30	Bltd TOP + BOTTOM	2 steel doors 4'-9" x 2'-6"	21	—
Forecastle Bulkhead	flat out.	.26	3 x 3 x 3	30	none	2 doors 4'-10" x 2'-5" 1 opening 5'-10" x 4'	18	—
Trunk, Aft								—
" Forward								—
Exposed Machinery Casings on } Freeboard or R.Q. Decks								—
Exposed Machinery Casings on } superstructure decks	—	.3	3 1/2 x 3 1/2 x 4	33-37	brd to cas beams at top	2 doors 4'-6" x 2" 2 - galley "	18	4'-0" at Bld 7'-0" at Bld
Machinery Casings within Super- structures not fitted with Cl. 1. closing appliances	18' x 35"	.33	3 1/2 x 3 1/2 x 4	33-37	bltd to casing beams at top	2 doors 4'-8" x 2'	18	7'-6"
Deckhouses on flush deck ships								—

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

Poop Bulkhead	Hinged steel doors. Operated both sides
R.Q.D. "	PORTABLE STEEL PLATE SECURED BY HOOK BOLTS.
Bridge Aft Bulkhead	Weather boards full height in channels riveted to bld.
" Forward "	Hinged W.T. Iron doors. Operated from outside
Forecastle Bulkhead	2 iron doors operated both sides to paint-chamber room, channels full at 1 opening - riveted.
Exposed Machinery Casings on } Freeboard or R.Q. decks	steel doors manipulated both sides
Exposed Machinery Casings on } superstructure decks	2 steel door " " "
Machinery Casings within super- structures not fitted with Cl. 1. Closing Appliances	
Deck houses on Flush Deck ships	

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	83-75"	3'-9"	4 @ 3' x 1'-5 1/2"	17.5 sq ft	16.75 sq ft
Forward Well	85-75"	3'-9"	4 @ 3' x 1'-5 1/2"	17.5 sq ft	17.15 sq ft

State fore and aft position and height above } After Well 8'-3", 26'-6", 47'-6" + 64'-0" from edge of W.P. to Bridge Bld
deck to bottom of port, for each port } Forward Well 11'-8", 33'-8", 50'-6" + 64'-0" from edge of W.P. to Bridge Bld

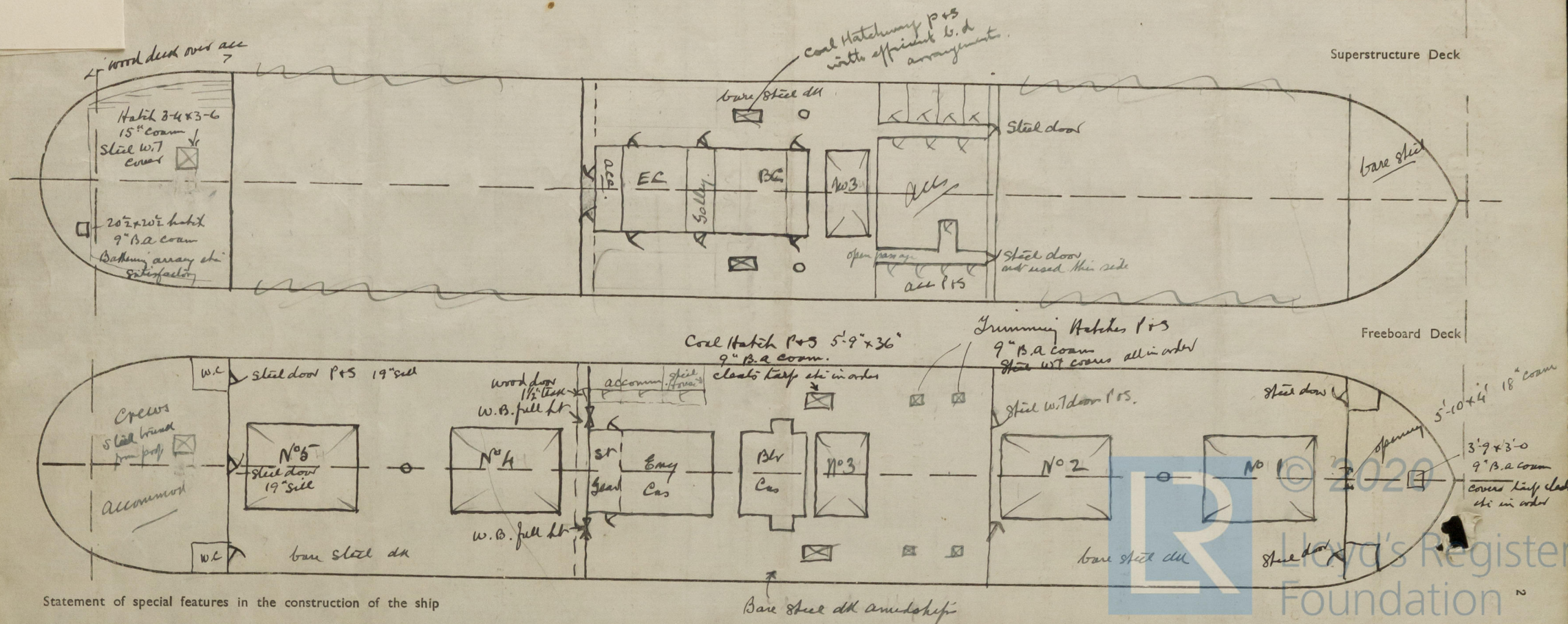
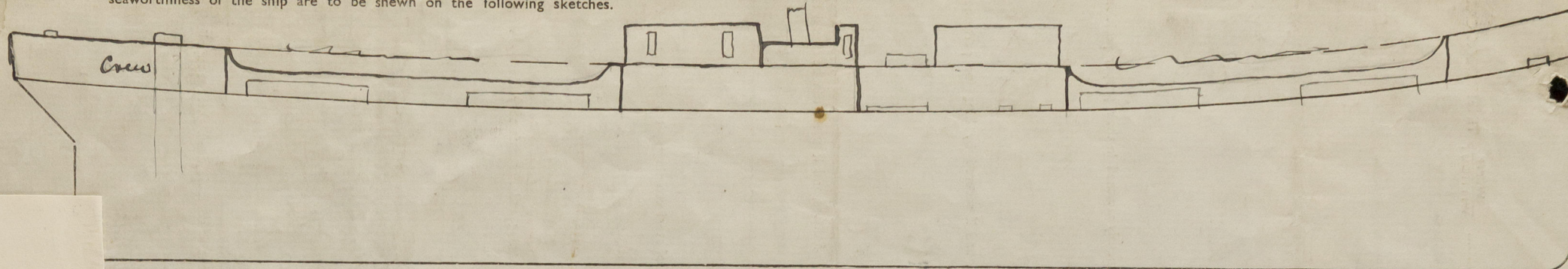
State whether freeing ports are fitted with shutters, bars or rails, and give particulars

all fitted with 2 horizontal rods, no shutters,
Give particulars of freeing port area, etc., on superstructure decks open rails

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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.



Statement of special features in the construction of the ship

The Freeboard Report has been compared with the
approved plans and found in order.

002051-002061-0068²/₂

15' wood deck over all
7

Coal Hatchway P + S
with efficient b.d
arrangement

PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	1	2	3	4	5	No. 3
Dimensions of Hatchway	Upper D. 26'-6" x 18'	Upper D. 26'-6" x 18'	Bridge D. 10'-2 1/2" x 18'	Upper D. 26'-6" x 18'	Upper D. 26'-6" x 18'	Upper Deck 12'-3" x 18'
COAMINGS	Height } steel { deck					
	above } wood {					
	Thickness { sides					
	ends {					
Stiffeners	Both sides 4 ends 7 x 3 x 4 B.A.	as No 1	7 x 3 x 4 B.A. sides 4 ends	as 1	as 1	9 x 3 1/2 x 1/2 B.A.
Brackets or Stays	2 @ 2 1/2 dia inside		no stays			
HATCH BEAMS	Number	5	5	1	5	5
	Spacing	4'-5"	4'-5"	5'-1 1/4"	4'-5"	4'-5"
	Scantling and Sketch	7" 4 x 3 x 4 15 x 3 1/2	as No 1	7" 4 x 3 x 4 12 x 3 1/2	as No 1	7" 4 x 3 x 4 16 x 3 1/2
	Bearing Surface and thickness of carriers or sockets	3 1/2" x 3 1/2 x 5	3 1/2" x 3 1/2 x 5	3 1/2" x 3 1/2 x 5	3 1/2" x 3 1/2 x 5	3 1/2" x 3 1/2 x 5
FORE AND AFTERS	Number					
	Spacing					
	Unsupported lengths					
	Scantling and Sketch	None	None			None
HATCH COVERS	Bearing Surface and thickness of carriers or sockets					
	Material	W.P.	W.P.	W.P.	W.P.	W.P.
	Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	How Fitted	F & A	F & A	F & A	F & A	F & A
Bearing Surface	3 x 3 x 3 1/2	as No 1	as No 1	as 1	as 1	as No 1.
Spacing of Cleats	23"					
Number of Tarpaulins	3					

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

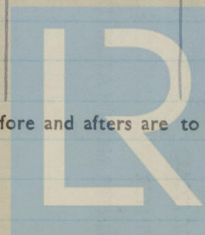
Are lashings provided in accordance with rule requirements?

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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D.N.
 Trust of the Fair Society of London & Co. B.G.
 Sunday Purser
 To the charge of the
 J. H. Payne R. Smith.
 The P. No.

Gangways and Lifelines *crew berthed in poop. hump lifelines fitted between ~~hull~~ eyebolt on*
~~Port Bulwark and Bulkhead~~
~~St. poop + ladder to bridge~~ + banded to rigging to keep level

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

not reqd

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

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 Chief Surveyor.

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

on the 23rd May 1934.

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