

# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILED: <sup>S/S</sup> "Derma" or "Indiana" WITH TIMBER DECK CARGO  
WITHOUT

Nationality Panamanian Builders' Name and No. of Ship BREMER VULKAN. VERESACK.

Port of Registry Panama

Official Number \_\_\_\_\_ Owners Bienvenida S/S Co Ltd Panama

Gross Tonnage 5751 Dos OCEANOS COMPANIAS DE NAVEGACION SA PANAMA SA PANAMA

Date of Build 1915. Port and Date of survey Marseilles (France) - July 1948

Particulars of Classification BS. Name of Surveyor M. Frager

Names of Sister Ships \_\_\_\_\_

Type of Superstructures Forecastle - Long poop deck - Bridge deck

Trade of Ship Ocean going

Service Endorsement if any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood..... steel)			
TROPICAL FRESH WATER LINE above centre of disc	12'	Corresponding Freeboard	6'-0"
FRESH WATER LINE " " "	6"	" "	5'-0"
TROPICAL LINE " " "	6"	" "	5'-6"
WINTER LINE below " "	6"	" "	5'-6"
WINTER NORTH ATLANTIC LINE " " "	-	" "	6'-6"

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 -  
re-survey Aug 4 1953.

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

*[Signature]*  
Ass<sup>t</sup> Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft  
on the 6<sup>th</sup> Oct 1948



### COMPUTATION OF FREEBOARD

Length on summer load line **420'-8"** Moulded Breadth **56'-2"** Moulded Depth **30'-8"** Depth of Keel

Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth Tons

Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times .85} = 155072 \times .72$

Displacement and tons per inch immersion in salt water at summer load line

Moulded depth **30.667** Deduction for Fresh Water  $\frac{\Delta}{401} = \frac{2}{4} = 6"$  inches

Stringer Plate **.40** **.033** Round of Beam Correction

Sheathing on exposed deck T  $\left(\frac{L-S}{L}\right)$  **-** Ships Round of Beam **11.81** inches

Rise of floor (in sailers) **-** Standard Round of Beam  $\frac{B \times 12}{50}$  **13.44**

Depth for Freeboard (D) **30.700** Difference **1.63**

Table Depth  $\frac{4}{15}$  **28.043** Restricted to Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = .408 \times .0830 = .0338$

Depth Correction **3 \times 2.657 = 7.971** If restricted by superstructures

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	332.15	-	7'-6"	332.15	-	332.15
Raised Quarter Deck						
Bridge		F				
		A				
Forecastle	43.0		8'-6"	54.95		53.62
Trunk Aft						
" Forward						
Tonnage Opening Aft						
" " Forward						
Totals				387.10		385.77

Standard Height of Superstructure **7'-6"**  
 " " R.Q.D. **-**  
 Percentage covered S/L = **92.02%**  
 " " E/L = **91.70%**  
 " from Table line A, B, (corrected for absence of fore-castle if required) **89.79%**  
 Percentage from Table by interpolation for Bridge less than .2L if required = **-**  
 Deduction = **42 \times .8979 = 37.72"**  
 Percentage from Table for Tankers (or Timber ships) = **-**  
 Deduction = **-**

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	63.0	52.07	63.0	1	63.00
$\frac{1}{3}$ L from A.P.	17.72	23.16	17.72	4	70.88
$\frac{2}{3}$ L from A.P.	1.97	5.73	1.97	2	3.94
Amidships	-	-	-	4	-
$\frac{1}{3}$ L from F.P.	5.90	11.46	5.90	2	11.80
$\frac{2}{3}$ L " "	43.31	46.82	43.31	4	173.24
F.P.	106.3	104.44	106.30	1	106.30
				18	429.16
Effective Mean Sheer					23.84
Standard " " .05L+5					26.04
Difference					2.20

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  $\times \left(.75 - \frac{S}{2L}\right) = 2.20 \times .2899 = .64$  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 = **78.01**

Correction for co-efficient =  $\frac{140}{136}$  = **80.31** DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Sailer, Tanker, Steamer	Timber
Depth correction	7.97			
Deduction for superstructures		37.72		
Sheer correction	.64			
Round of Beam correction	.03			
Correction for thickness of deck amidships				
Other corrections, scantlings, etc.	20.77			
	29.41	37.72	- 8.31	
Summer Freeboard in inches	6'-0"		72.00	
Additional allowance for superstructures on Timber carrying ships				
Summer Timber Freeboard in inches				

Depth to Freeboard Deck in feet **30.700**  
 Summer Freeboard in feet **6.000**  
 Moulded Draught (d) **24.700** (d1)  
 Addition for Keel  
 Extreme draught  
 Deduction for Tropical and addition for Winter freeboard  $d/4 = 6"$  ins.  
 Addition for Winter North Atlantic (if required) = **-** ins.  
 Deduction for Tropical Timber Freeboard  $d/4$  ins.  
 Addition for Winter " "  $\frac{d}{3}$  ins.  
 " " N.A. Timber Freeboard (if required) = **-** ins.

# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD

### CONDITIONS OF ASSIGNMENT

SHIP'S NAME *Derna ex Indiana* OFFICIAL NUMBER  
 Nationality and Port of Registry *Panamanian Panama*

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
<i>Long</i> Poop Bulkhead		steel 8 mm			an extension of long fore shearstrake forming bracket	No openings		
R.Q.D. "								
Bridge Aft Bulkhead		steel forming aft end of machinery casing			fitted with steel doors			
" Forward "		steel 8 mm			as long fore bulkhead	No openings		
Forecastle Bulkhead		steel 8 mm			as long fore bulkhead			
Trunk, Aft						two alleyways leading to crew quarters		
" Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks								
Exposed Machinery Casings on superstructure decks								
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances								
Deckhouses on flush deck ships								

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

<i>Long</i> Poop Bulkhead	No openings (except portholes)
R.Q.D. "	
Bridge Aft Bulkhead	<del>3 wood doors (coaming 280 mm) ; 2 steel doors (coaming 435 mm)</del>
" Forward "	<del>No openings (except portholes)</del>
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or R.Q. decks	
Exposed Machinery Casings on superstructure decks	
Machinery Casings within superstructures 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					
Forward Well					
<i>No freeing parts (handrails)</i>					
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

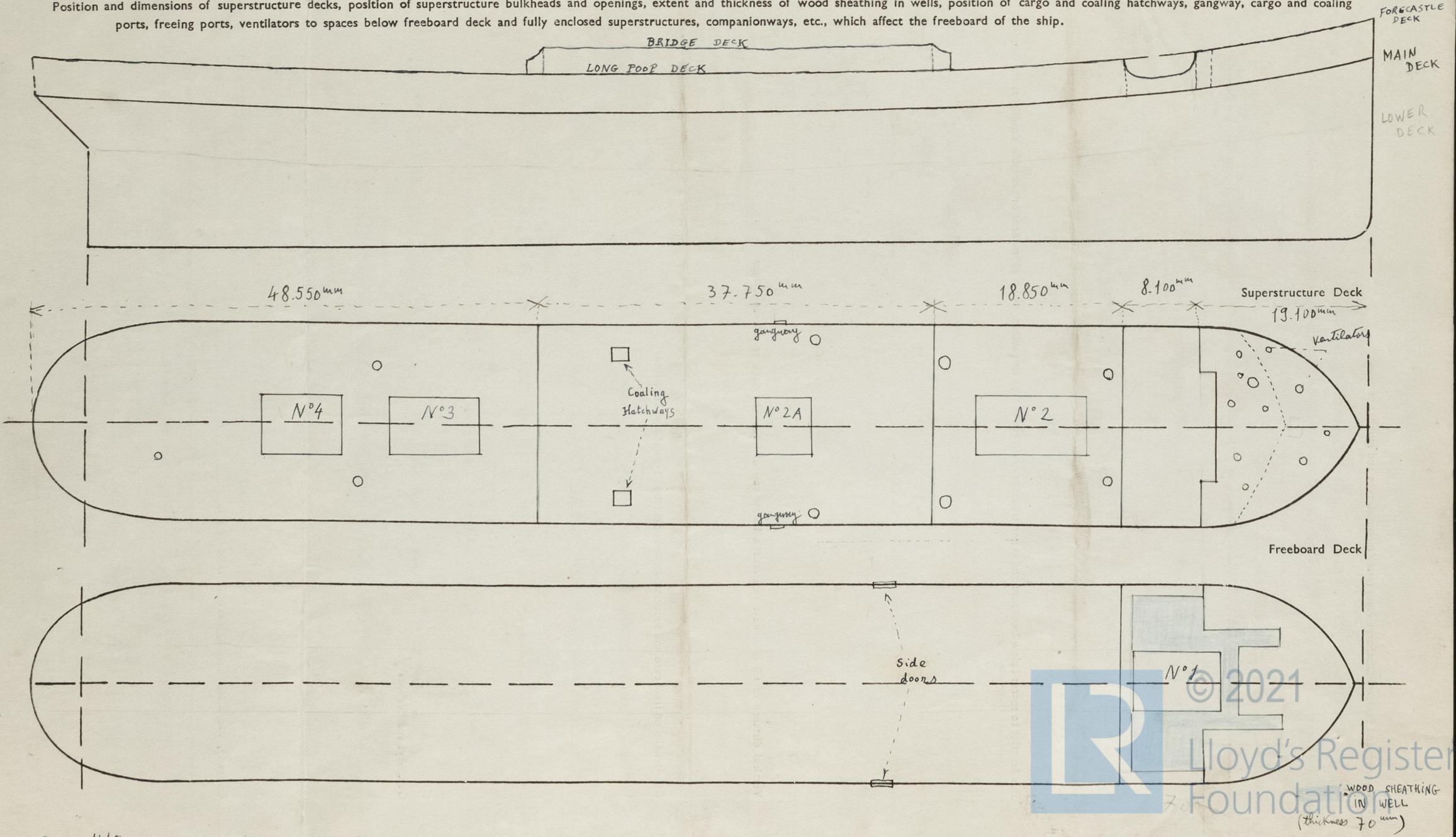
*No freeing parts on superstructure decks (handrails)*



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Position and dimensions of superstructure decks, position of superstructure bulkheads and openings, extent and thickness of wood sheathing in wells, position of cargo and coaling hatchways, gangway, cargo and coaling ports, freeing ports, ventilators to spaces below freeboard deck and fully enclosed superstructures, companionways, etc., which affect the freeboard of the ship.



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	N°1 (Hold n°1)	N°2 (Hold n°2)	N°2 A (crossbankers)	N°3 (Hold n°3)	N°4 (Hold n°4)	Forecastle Store room Hatchway	Coaling Hatchways (1 port 1 stbd) on bridge deck	Aft poop Store room Hatchway
Dimensions of Hatchway	8750 x 5320 mm	10750 x 5320 mm	4700 x 5320 mm	8100 x 5320 mm	7400 x 5320 mm	1180 x 820 mm	1000 x 635 mm	760 x 760 mm
COAMINGS	Height above deck	840 mm	840 mm	900 mm	900 mm	310 mm	780 mm	430 mm
	Thickness sides ends	11 mm	11 mm	11 mm	11 mm	18 mm } (doubled)	10 mm	8 mm
	Stiffeners (sides only)	200 mm	as N°1	150 x 85 mm	as N°A2	No	Moulded 60 mm 1/2 round	No
	Brackets or Stays	No	No	No	5 small stays each side	No	No	No
HATCH BEAMS	Number	3	4	1	3	3		
	Spacing	2250 mm	2050 mm	2450 mm	2050 mm	1 1380 mm 3 2050 mm		
	Scantling and Sketch			same beams for hatchways		all		
Bearing Surface and thickness of carriers or sockets	as for n°1	as for n°1	as for n°1	as for n°1	as for n°1			
FORE AND AFTERS	Number							
	Spacing							
	Unsupported lengths							
	Scantling and Sketch							
Bearing Surface and thickness of carriers or sockets								
HATCH COVERS	Material	wood	wood	wood	wood	wood	wood	
	Thickness	65 mm	65 mm	65 mm	65 mm	65 mm		
	How Fitted	longitudinal	longitudinal	longitudinal	longitudinal	longitudinal		
	Bearing Surface	100 x 470 mm at each end	as for n°1	as for n°1	as for n°1	as for n°1		
Spacing of Cleats	600 mm	575 mm	575 mm	550 mm	600 mm			
Number of Tarpaulins	3	3	3	3	3			
Are tarpaulins in good condition and in accordance with rule requirements?	yes			Are wood fore and afters steel shod at all bearing surfaces?				
Are lashings provided in accordance with rule requirements?	yes			Are battens and wedges efficient and in good condition?				

Give full particulars of the following :—

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

Fiddley enclosed in house up to boats deck. Fiddley top covered by steel grating and flat steel doors  
 Fiddley top, lower part of funnel and boiler room ventilators are enclosed in a rectangular open steel casing 1<sup>m</sup> 30 high  
 Engine room skylight ; ten steel covers (each fitted with four part lights) manipulated from engine room.

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

Three part, three starboard on bridge deck, made of cast iron, diameter 530<sup>mm</sup> screwed on

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)

One companionway for aft crew space, steel, coaming 380<sup>mm</sup> (enclosed in a steel house of equal coaming); steel doors which can be closed from both sides.

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)

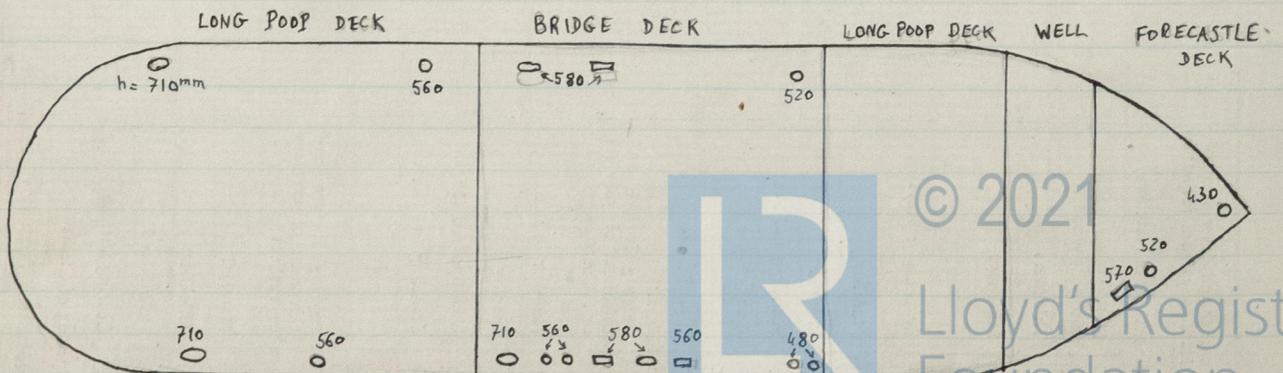
Forecastle deck : 11 ventilators, 4 forward of sea breaker (height of steel coaming 760<sup>mm</sup>)  
 7 aft of sea breaker (coaming 530<sup>mm</sup> to 760<sup>mm</sup>). Pitch of rivets : 100<sup>mm</sup>

Long poop deck forward in way of hatch no 2 : 2 ventilators (1 part, 1 sthd) abreast fore mast (coaming 750<sup>mm</sup>); 2 ventilators next bridge deck front bulkhead (used as spare derricks posts)  
 Pitch of rivets : 100<sup>mm</sup>

Bridge deck : 1 ventilator part and 1 sthd in way of hatchway no 2A forward part; coaming: 800<sup>mm</sup>

Poop deck : 2 ventilators (1 part, 1 sthd) abreast aft mast (coaming : 700 and 750<sup>mm</sup>), 1 ventilator poop aft (coaming 430<sup>mm</sup>)

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



NO CLOSING ARRANGEMENTS PROVIDED

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

5 Portside, 4 starboardside, all with galvanized steel pipes fitted on shell with non return valves

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

No side scuttle

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

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

Forecastle deck : hand rail 3 rows all around

Well : on each side : bulwark (2<sup>m</sup>, 050); handrail 3 rows (4<sup>m</sup>, 100); bulwark (2<sup>m</sup>, 050)

Long poop deck forward : Handrail 3 rows all around except 2<sup>m</sup>, 050 bulwark at fore end (each side).

Bridge deck : Bulwark all around except handrail 3 rows at aft part.

Poop deck : handrail 3 rows except 2<sup>m</sup>, 050 bulwark at fore end (each side)

Gangways and Lifelines

1 gangway in bridge deck bulwark each side amidships

Life line in well deck

Gangway, Cargo and Coaling Ports in sides of ship

Two gangway watertight steel doors on each side above main deck in way of frame n° 116

No coaling ports on ship's side.



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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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