

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

25/4/45

STEAMER, ~~TANKER~~, ^{SS} ~~SAILER~~: EMPIRE MAYFLOWER ~~WITHOUT~~ TIMBER DECK CARGO

Nationality BRITISH Builders' Name and No. of Ship BARTRAM & SONS LTD N° 308

Port of Registry JUNDERLAND

Official Number 180164. Owners MINISTRY OF WAR TRANSPORT

Gross Tonnage 394.1. (MARS) SINGAPORE STRAITS SHIPPING CO LTD

Date of Build 6/9/1945 Port and Date of survey JUNDERLAND DURING CONSTRUCTION

Particulars of Classification B.S. * (WITH FREEBOARD EAST INDIAN ARCHIPELAGO SERVICE) Name of Surveyor W. H. Stephens & T. B. TILLERY.

Type of Superstructures OPEN SHELTER DECK - MIDDLE LINE OPENING AMIDSHIPS Names of Sister Ships Boulders No 307 - 'C' TYPE CARGOES.

Trade of Ship

Service Endorsement ~~if any~~ AND ONLY SO LONG AS THE SHIP IS ENGAGED IN EAST INDIAN ARCHIPELAGO SERVICE.

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	1	Corresponding Freeboard	1' 10"
FRESH WATER LINE	" " "	2'	" "	1' 8"
TROPICAL LINE	" " "	1	" "	-
WINTER LINE	below " "		" "	-
WINTER NORTH ATLANTIC LINE	" " "	1	" "	-

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

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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SURVEY FOR FREEBOARD

CONDITIONS OF ASSIGNMENT

SHIPS NAME *EMPIRE MAYFLOWER.*OFFICIAL NUMBER *180164*

Nationality and Port of Registry

*BRITISH**SUNDERLAND.*

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	<i>.25"</i>	<i>.25"</i>	<i>3" x .25" FLATS</i>	<i>2'-6"</i>	<i>BKTS. AT TOP</i>	-	-	-
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "								
Forecastle Bulkhead	<i>.25"</i>	<i>.25"</i>	<i>3" x .25" FLATS</i>	<i>2'-6"</i>	-	<i>1@3'-0" x 2'-0"</i>	<i>36"</i>	<i>1'-0"</i>
Trunk, Aft								
" Forward								
Exposed Machinery Casings on } Freeboard or R.Q. Decks }								
Exposed Machinery Casings on } superstructure decks }	<i>3/16"</i>	<i>3/16"</i>	<i>3" x 3" x 30"</i>	<i>30"</i>	<i>BKTS AT TOP</i>	<i>2@4'-9" x 1'-9"</i>	<i>18"</i>	<i>4'-2"</i>
Machinery Casings within Super- structures not fitted with Cl. 1 closing appliances }								
Deckhouses on flush ^{sketch} deck ships	<i>AFT FORZ.</i>	<i>3/16" .25"</i>	<i>PLATES FRANGED</i>	<i>30"</i>	<i>BKTS AT TOP & B.</i>	<i>3@4'-9" x 1'-9" 1@4'-9" x 1'-9"</i>	<i>18"</i>	<i>1'-0"</i>

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

Poop Bulkhead	<i>No opening</i>
R.Q.D. "	
Bridge Aft Bulkhead	
" Forward "	
Forecastle Bulkhead	<i>Watertight Bolted Plate</i>
Exposed Machinery Casings on } Freeboard or R.Q. decks }	
Exposed Machinery Casings on } superstructure decks }	<i>Steel Hinged Doors. Operated from both sides</i>
Machinery Casings within super- structures not fitted with Cl. 1 Closing Appliances }	
Deck houses on flush ^{sketch} Deck ships	<i>Wood & Steel Hinged Doors. Operated from both sides.</i>

PARTICULARS OF FREEING ARRANGEMENTS

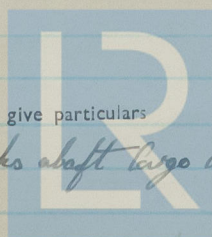
	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well			<i>Open Rails.</i>		
Forward Well					

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

5" S.D. Scupper fitted P.S. in tween Decks abaft large door, geared to shelter deck.

Give particulars of freeing port area, etc., on superstructure decks



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COMPUTATION OF FREEBOARD

Length on summer load line 140'-5" Moulded Breadth 27'-0" Moulded Depth 10'-6" Depth of Keel 80

Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 683 Tons

Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7063$

Displacement and tons per inch immersion in salt water at summer load line 666 @ 7.51 7.71

Moulded depth 10.500 Deduction for Fresh Water $\frac{\Delta}{40 T} = 2.22$ inches

Stringer Plate 5/16" .026 Round of Beam Correction

Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ - Ships Round of Beam 0.00 inches

Rise of floor (in sailers) - Standard Round of Beam $\frac{B \times 12}{50} = 6.48$

Depth for Freeboard (D) 10.526 Difference 6.48

Table Depth 4/15 9.361 Restricted to

Depth Correction 4/130 1.165 Correction $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = 1.62 \times .2359$

If restricted by superstructures 1.2580 = .382 ON

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	
Poop	5'-0"	28'-0"	7'-0"	48.42		64.42	Standard Height of Superstructure <u>6'-0"</u>
Raised Quarter Deck							" " R.Q.D.
Bridge		F					Percentage covered S/L = <u>100%</u>
		A					" " E/L = <u>76.41%</u>
Forecastle	23'-9"	34'-3"	7'-0"	58.00		40.88	" from Table line A, B, (corrected for absence of forecastle if required) <u>70.88%</u>
Trunk Aft							Percentage from Table by interpolation for Bridge less than .2L if required = <u>-</u>
" Forward							
Tonnage Opening Aft	4'-0"			4'-0"	.50	2.00	Deduction = <u>20.042 x .7088 = 14.21 OFF</u>
" " Forward							Percentage from Table for Tankers (or Timber ships) = <u>-</u>
Totals				140.42		107.30	Deduction = <u>-</u>

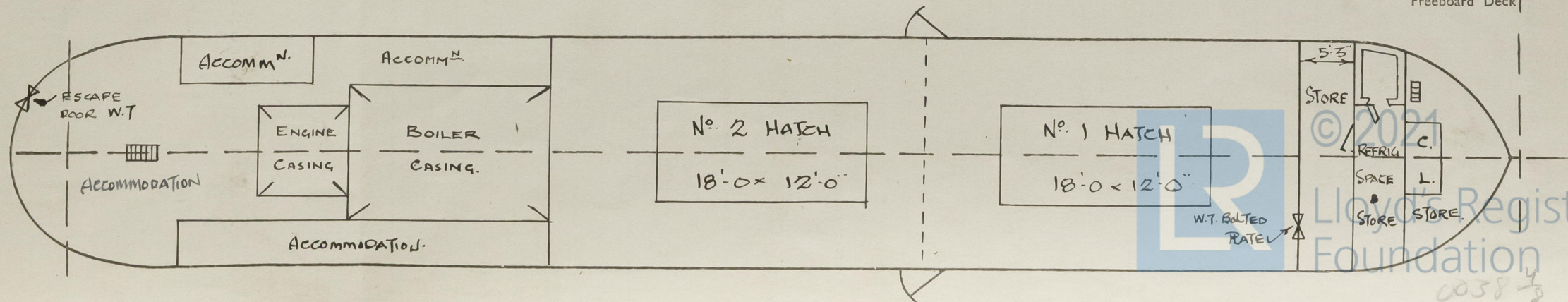
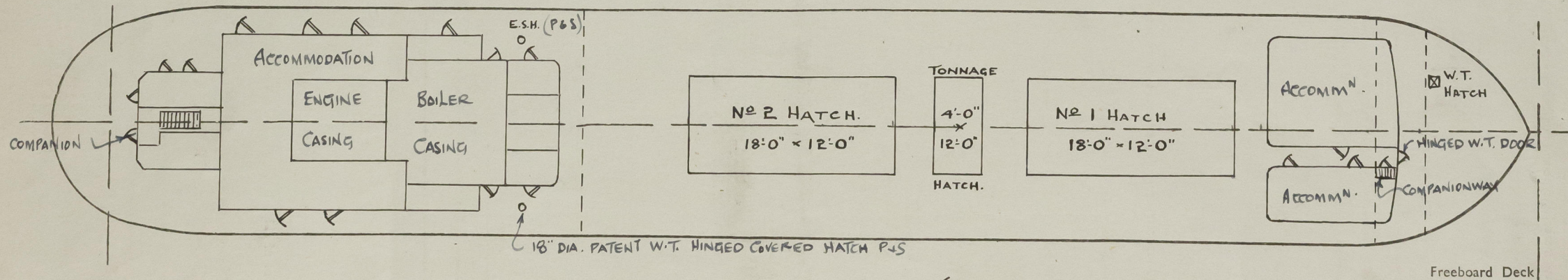
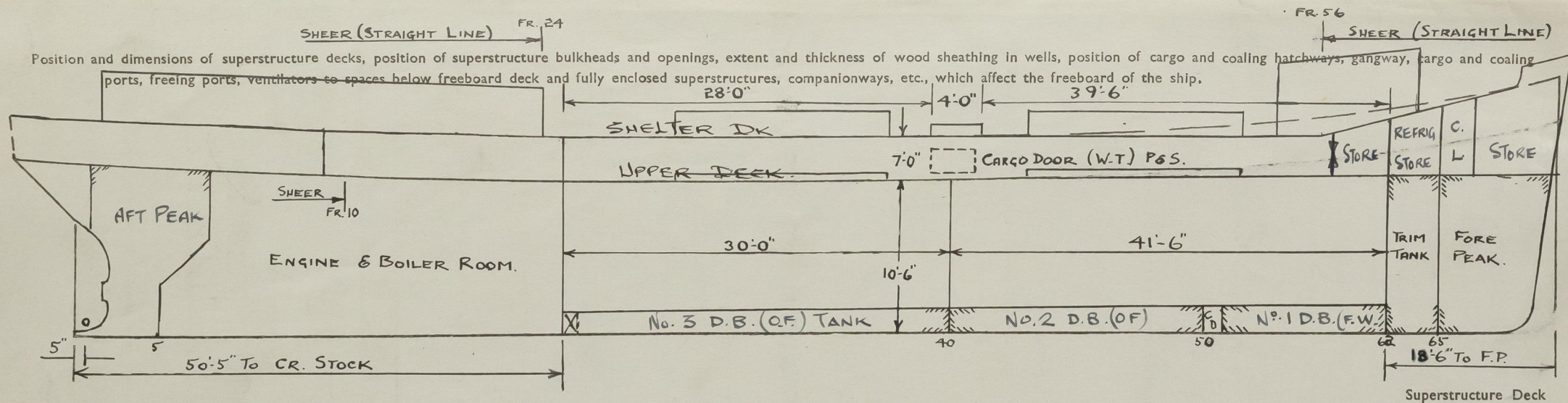
Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual sheer aft	
12" EXCESS SHEER DECK HT.						" Standard " "	= MORE THAN 1
28 A.P. SHEERS	1'-4"	24'-04	24'-04	1	24'-04		
12-44 1/2 L from A.P.		10'-70	10'-70	4	42'-80	Mean Actual sheer forward	= LESS THAN 1. (72.84%)
3-11 1/2 L from A.P.		2'-64	2'-64	2	5'-28	" Standard " "	
- Amidships		-		4	-	Length of enclosed superstructure forward of amidships	= -
3-89 1/2 L from F.P.		6'-29	3'-89	2	7'-78	Length of Ship	
15-56 1/2 L " "		21'-40	15'-56	4	62'-24	Length of enclosed superstructure aft of amidships	= -
34-90 F.P.	2'-8	48'-08	34'-98	1	34'-98	Length of Ship	
Effective Mean Sheer				18	177'-120	Sheer Correction = Difference X $\left(75 - \frac{S}{2L}\right) = 2.180 \times .26$	= 545 ON.
Standard " " .05L + 5					12'-020	If limited on account of midship superstructure	= -
Difference					2'-180	" to maximum allowance of 1 1/2 ins. per 100 ft.	= -

TABULAR FREEBOARD corrected for flush deck if required = 14.25

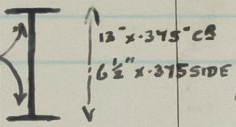
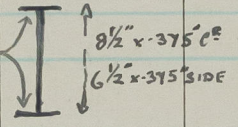
Correction for co-efficient = 13863-136 = 14.53 DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Sailer, Tanker, Steamer	Timber
Depth correction	1.26	-		
Deduction for superstructures	-	14.21		
Sheer correction	.54	-		
Round of Beam correction	.38	-		
Correction for thickness of deck amidships	-	-		
Other corrections, scantlings, etc.	19.50	-		

Summer Freeboard in inches	1'-10"	14.21	7.47	22.00	Depth to Freeboard Deck in feet <u>10.526</u>	
Additional allowance for superstructures on Timber carrying ships					Summer Freeboard in feet <u>1.833</u>	
Summer Timber Freeboard in inches					Moulded Draught (d) <u>8.693</u>	(d1)
					Addition for Keel <u>0.67</u>	
					Extreme draught <u>8'-9"</u> <u>8.760</u>	
					Deduction for Tropical and addition for Winter freeboard d/4 = <u>-</u>	ins.
					Addition for Winter North Atlantic (if required)	= ins.
					Deduction for Tropical Timber Freeboard $\frac{d}{4}$	= ins.
					Addition for Winter " $\frac{d}{4}$	= ins.
					" " N.A. Timber Freeboard (if required)	= ins.



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward		SHELTER DECK				2 ND DECK							
		N ^o 1	N ^o 2	TONNAGE HATCH	W.T. HATCH TO STORE FOR ^d	N ^o 1	N ^o 2						
Dimensions of Hatchway		18' x 12'	18' x 12'	4' x 12'	2'-6" x 2'-6"	18' x 12'	18' x 12'						
COAMINGS	Height above { steel { deck wood {	18"	18"	9"	9"	9"	9"						
	Thickness { sides { ends {	.38"	.38"	9" x 3" x .375 gal	.31"	9" x 3" x .375 gal	9" x 3" x .375 gal						
	Stiffeners (at sides)	9" x 3" x .375 gal	9" x 3" x .375 gal	-	-	-	-						
	Brackets or Stays	3 BKTS. EACH SIDE	3 BKTS. EACH SIDE	-	-	-	-						
HATCH BEAMS	Number	3	3	-	-	3	3						
	Spacing	4' - 6"	4' - 6"	-	-	4' - 6"	4' - 6"						
	Scantling and Sketch	 6" x 3/8" WELDED FLATS 12" x .375" CS 6 1/2" x .375" SIDE As No. 1.		-	 6 3/8" x 3/8" WELDED FLATS 8 1/2" x .375" CS 6 1/2" x .375" SIDE As No. 1								
	Bearing Surface and thickness of carriers or sockets	3"	3"	-	-	3"	3"						
FORE AND AFTERS	Number												
	Spacing												
	Unsupported lengths												
	Scantling and Sketch												
HATCH COVERS	Bearing Surface and thickness of carriers or sockets												
	Material							W.P.	W.P.	W.P.	RINCED W.T. STEEL	W.P.	W.P.
	Thickness							2"	2"	2"	.25"	2"	2"
	How Fitted							F. & A.	F. & A.	F. & A.	F. & A.	F. & A.	F. & A.
	Bearing Surface							2 1/2"	2 1/2"	2 1/4"	-	2 1/2"	2 1/2"
Spacing of Cleats		22"	22"	BOLTED 22"	7 TONGUES	29"	29"						
Number of Tarpaulins		2	2	2	-	1	1						

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

yes

Are lashings provided in accordance with rule requirements?

YES

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

Are battens and wedges efficient and in good condition?

yes



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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)

Steel Hinged covers to Stiddleby Opening, Permanently Secured. Coaming 12" x 35"
E.R. Skylight. - Coaming 5" to 12". 4 Hinged Steel W.T. Flaps. - No Glasses.
with 4 Toggles each flap
Galley Skylight - Coaming 3"; Hinged Steel W.T. Flap with 4 Toggles - No Glasses.
E & B Vents - 2 @ 20" dia.

Flush ~~Bunker~~ ^{ESCAPE} Scuttles on ~~freeboard~~ ^{and} superstructure deck (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

2. Mechan Patent. W.T. Escape Scuttles on Shelter deck. 18" dia. 7" coaming.

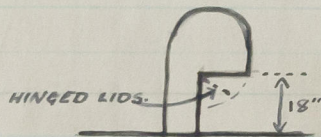
Companionways on ~~franchise and~~ superstructure deck (state material, height of doorway sills, type of doors, and if these can be closed and secured from both sides)

Aft to Accommodation; Steel; 18" Coaming; Ringed Wood Door; Operated from both sides.
Forward to Stores; " ; " " ; " " " ; " " " "

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)

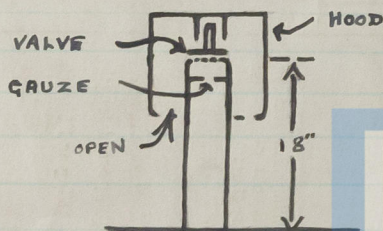
On Shelter Deck. 2 @ 12" dia^t; Coamings 3'-0" } Fitted With Wood Plugs & Canvas Covers.
2 @ 14" " ; " 3'-0" } Coamings Welded To Deck.
1 @ 16" " ; " 3'-0" }

Vents to accommodation aft of fabricated gooseneck type, welded to dh., and fitted with hinged steel lids; and canvas covers.



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

Coamings 18" high, with steel hood & valve. (Gauze fitted in way of O.F. tanks.)



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

1 @ 5" brass screw down valve P & S. on 2nd dh operated from above shelter deck.
Scuppers on shelter deck, above deck.

Sanitary Discharges.

1 @ 2" dia. to European galley with screw down valve above freeboard deck.
1 @ 3" " " Native Mess Rooms " " " " " " " "
All other discharges above freeboard deck fitted with clack valves.

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

None below Freeboard Deck.

Below Shelter Deck of ordinary circular type of brass.

4 @ 10" dia. P & S. to after accommodation fitted with hinged C.I. deadlights
5 @ 14" " " " " " " " " " " " " " " " "

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

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

Guard rails on Shelter Deck 3'-3" high with 3 Rails.

Gangways and Lifelines

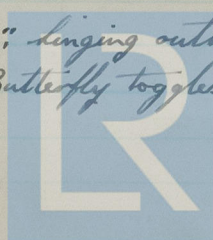
Lifelines fitted fore & aft (P & S)

No gangways

Gangway, Cargo and Coaling Ports in sides of ship

Cargo door P & S 4'-9" x 3'-6" x 14" sill. Fitted with 2 strongbacks P & S. Rubber jointing

Escape door aft on Port quarter 1'-9" x 1'-9" hinging outboard & downwards with vertical 4" channel strongback, with 2 Butterfly toggles. Rubber ~~jointing~~ jointing 19" sill



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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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