

# ALTERATIONS

Rpt. C.11.

## Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

Index. No. 32272  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <b>LONDON</b>
having <b>POOP, BRIDGE AND FCLE. COMBINED</b>					<b>DURING ALTERATIONS</b>
(Type of Superstructures.)					Date of Survey <b>AFLOAT AND IN DRY DOCK.</b>
Ship's Name <b>CHESHIRE</b>	Nationality and Port of Registry <b>BRITISH LIVERPOOL</b>	Official Number <b>149625</b>	Gross Tonnage	Date of Build <b>1927/7</b>	Name of Surveyor <b>Arthur H. Smith</b>
Moulded Dimensions: Length <b>482.00</b> Breadth <b>60.00</b> Depth <b>36.25</b>					Particulars of Classification <b>+ 100A1</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>19213</b> tons					
Coefficient of fineness for use with Tables <b>754</b>					

<b>Depth for Freeboard (D)</b> Moulded depth ... .. <b>36.25</b> Stringer plate ... .. <b>.04</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) = .25 \times .0415 = .01$ Depth for Freeboard (D) = <b>36.30</b>	<b>Depth correction</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R = (36.30 - 32.13) \times 3 = +12.51$ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures	<b>Round of Beam correction</b> Moulded Breadth (B) <b>60.0</b> Standard Round of Beam = $\frac{B \times 12}{50} = 14.4$ Ship's Round of Beam = <b>9.0</b> Difference <b>5.4</b> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{5.4}{4} \times .0415 = +.06$
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### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..	51.25	51.25	7.75	-	51.25	Standard Height of Superstructure <b>7.5</b>
" overhang ... ..						" " R.Q.D.
R.Q.D. enclosed ... ..						Deduction for complete superstructure <b>42</b>
" overhang ... ..						Percentage covered $\frac{S}{L} =$
Bridge enclosed ... ..						" " $\frac{S_1}{L} =$ <b>95.85</b>
" overhang aft ... ..						" " $\frac{E}{L} =$
" overhang forward ... ..						Percentage from Table, Line A. <b>94.89</b>
F'cle enclosed ... ..	410.75	410.75	8.55	-	410.75	(corrected for absence of forecastle (if required))
" overhang ... ..						Percentage from Table, Line B.
Trunk aft ... ..						(corrected for absence of forecastle (if required))
" forward ... ..						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ... ..						Deduction = <b>42 x 94.89 = - 39.85</b>
" " forward ... ..						
Total ... ..	462.00	462.00			462.00	

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..	58.20	1		58.20	61.0	61.0	1		61.0	Mean actual sheer aft = <b>&gt; .75</b>
1/4 L from A.P. ... ..	25.90	4		103.60	24.6	24.6	4		98.4	Mean actual sheer forward = <b>E</b>
1/2 L " ... ..	6.40	2		12.80	2.5	2.5	2		5.0	Mean standard sheer forward
Amidships ... ..	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = <b>&gt; .1</b>
3/4 L from F.P. ... ..	12.80	2		25.60	23.7	23.7	2		47.4	" " aft of " = <b>&gt; .1</b>
1/4 L " ... ..	51.80	4		207.20	68.0	68.0	4		272.0	
A.P. ... ..	116.40	1		116.40	120.0	120.0	1		120.0	
Total ... ..				523.80					603.8	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{523.8 - 80.0}{18} \left( .75 - \frac{4792}{2708} \right) = -1.20$

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>36.48</b> Summer freeboard = <b>6.31</b> Moulded draught (d) = <b>30.17</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>7.54 = 7 1/2</b> Addition for Winter North Atlantic Freeboard (if required) =	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40 T}$ inches = <b>7 3/4</b>	<b>TABULAR FREEBOARD</b> corrected for Fresh Deck (if required) Correction for coefficient $\frac{754 + .68}{1.36} = \frac{1.434}{1.36}$ <table border="1"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction ... ..</td> <td>12.51</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td>-</td> <td>39.85</td> </tr> <tr> <td>Sheer correction ... ..</td> <td>-</td> <td>1.20</td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td>.06</td> <td>-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ... ..</td> <td>2.13</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc. ... ..</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td>14.70</td> <td>41.05</td> </tr> </tbody> </table> Summer Freeboard = <b>75.83</b>		+	-	Depth Correction ... ..	12.51	-	Deduction for superstructures ... ..	-	39.85	Sheer correction ... ..	-	1.20	Round of Beam correction ... ..	.06	-	Correction for Thickness of Deck amidships ... ..	2.13	-	Other corrections, scantlings, etc. ... ..	-	-		14.70	41.05
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### SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... ..	15 1/4	Tropical Fresh Water Freeboard ... ..	5 10 1/2
Fresh Water Line " " ... ..	7 3/4	Fresh Water " " ... ..	8 - 8
Tropical Line " " ... ..	7 1/2	Tropical " " ... ..	8 - 8 1/4
Winter Line below " " ... ..	7 1/2	Winter " " ... ..	8 - 11 1/4
Winter North Atlantic Line " " ... ..	-	Winter North Atlantic " " ... ..	-

19 APR 1944



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		18 SUPERSTRUCTURE FORP.							
Dimensions of Hatchway		11'-6" x 16'-0"							
COAMINGS	Height above Deck	33"							
	Thickness	50"							
	Stiffeners	57 x 3 x 1/2"							
	Brackets, Stays	NONE							
HATCH BEAMS	Number	5-9"							
	Spacing	19" x 3/8"							
	Scantling and Sketch								
	Bearing Surface	3"							
FORE AND AFTERS	Number	NONE							
	Spacing	NONE							
	Unsupported Lengths	NONE							
	Scantling and Sketch	NONE							
HATCH COVERS	Material	WOOD							
	Thickness	2 3/4"							
	How fitted	F + A.							
	Bearing Surface	3"							
Spacing of Cleats		24"							
Number of Tarpaulins		3							

\*Are wood fore and afters steel shod at all bearing surfaces? ☒ YES

Are battens and wedges efficient and in good condition? ☒ YES

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

Are lashings provided in accordance with rule requirements? ☒ YES

Particulars of fiddle, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:— <sup>✓</sup> STEEL COMPANIONS 7'-6" x 4'-0" WITH 18" BILLS. SUBSTANTIAL HINGED WOOD DOORS. " " " " " 9" " ABOVE TOP OF HATCH, SUBSTANTIAL WOOD DOORS, ON TOP OF NOS 4, 5, & 6 HATCHWAYS.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

NEW DECK FORP. 16' x 3/8" 36" COAMINGS. WELDED TO DECK. = 10' x 3/8"

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Particulars of Gangway Cargo and Coaling Ports:—

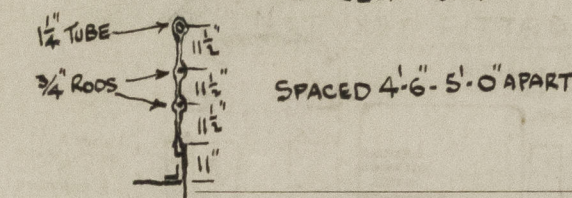
Particulars of Scuppers and Sanitary Discharge Pipes:— SCUPPERS 1/4" FROM NEW DECK FORP THROUGH SHIP'S SIDE WITHOUT VALVES.

Particulars of Side Scuttles:—

NONE.

Particulars of Guard Rails:—

ON NEW DECK FORP.



SPACED 4'-6" - 5'-0" APART

Particulars of Gangways, Lifelines, etc.:—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	20'-0"		1 AT 3'-6" x 1'-6" 1 " 1'-6" x 1'-2" IN EACH HALF OF STEEL DOOR	3	8.73 sq	8.5 sq
Forward Well	NONE					

State position of each freeing port (F. and A. position and height above deck edge) After Well:— Forward Well:—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— HORIZONTAL BARS. 2.

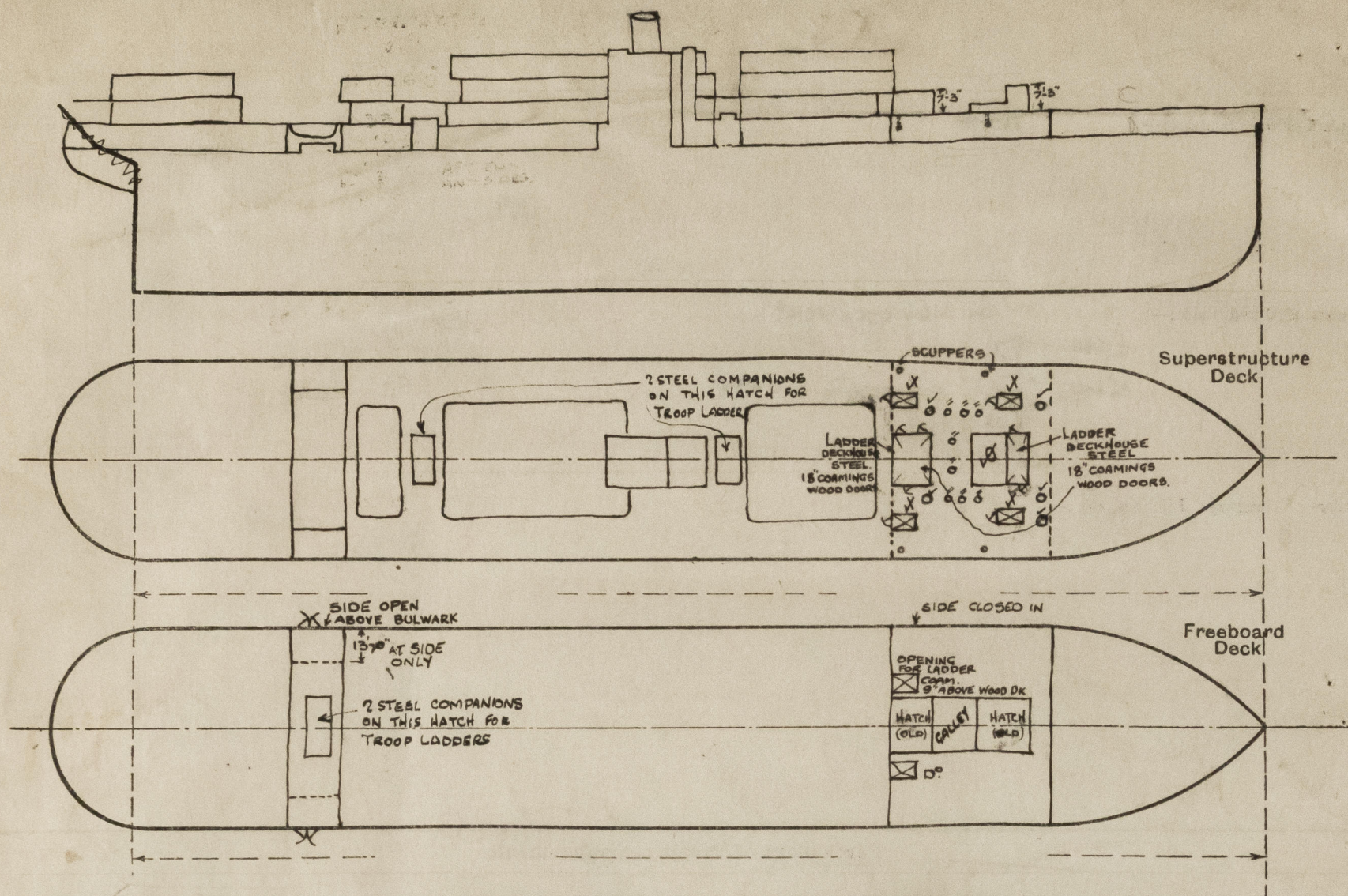
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	W.B. IN RIVETED CHANNELS
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	HINGED WOOD DOORS
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, 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:—



The draught while on service as a troopship is expected to be between 25 and 26 ft.

State any special features in the construction of the ship:—

Builder's name and yard number.

Names of sister ships.

Owners.

Fee £ : : .

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