

27 JUN 1932

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. **31617**
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having hull and combined bridge and forecastle

(Type of Superstructures.)

Port of Survey New York

Ship's Name CITY OF LYONS Nationality and Port of Registry British Official Number 147353 Gross Tonnage 7248 M.O.T. 7153 Date of Build 1926-2

Date of Survey June 15th 1932

Name of Surveyor M. Bennett

Moulded Dimensions: Length 454.54 Breadth 57.75 Depth 54.54

Moulded displacement at moulded draught = 85 per cent. of moulded depth 16712 tons

Coefficient of fineness for use with Tables .764

Particulars of Classification +100 A1

Depth for Freeboard (D)

Moulded depth ... 54.54

Free plate04

Mean on exposed deck $\frac{(L-S)}{L} =$

Depth for Freeboard (D) = 54.54

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = $(54.54 - 50.50) \times 1 = +12.21$

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 57.75

Standard Round of Beam = $\frac{B \times 12}{50} = 13.86$

Ship's Round of Beam = 14.50

Difference .64

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.64}{4} \times (1 - \frac{.04}{54.54}) = .16 \times .9926 = .1588$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Top enclosed ...	<u>45.50</u>	<u>45.50</u>	<u>8.5</u>	<u>-</u>	<u>45.50</u>
overhang ...					
Q.D. enclosed ...					
overhang ...					
Bridge enclosed ...					
overhang aft ...	<u>509.04</u>	<u>509.04</u>	<u>8.5</u>	<u>-</u>	<u>509.04</u>
overhang forward ...					
Enclosed ...					
overhang ...					
Link aft ...					
forward ...					
Image opening aft ...					
forward ...					
Total ...	<u>512.54</u>	<u>512.54</u>			<u>512.54</u>

Standard Height of Superstructure 4.5

" " R.Q.D. ✓

Deduction for complete superstructure 42.00

Percentage covered $\frac{S}{L} = 77.56$

" $\frac{S_1}{L} = 77.56$

" $\frac{E}{L} = 77.56$

Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 72.30

Percentage from Table, Line B. (corrected for absence of forecastle (if required)) -

Interpolation for bridge less than .2L (if required) -

Deduction = $72.30 \times 42 = -30.34$

SHEER CORRECTION.

Position	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<u>55.45</u>	1		<u>55.45</u>	<u>45.00</u>	<u>45.00</u>	1		<u>45.00</u>
A.P. ...	<u>24.68</u>	4		<u>98.72</u>	<u>19.75</u>	<u>19.75</u>	4		<u>79.00</u>
...	<u>6.10</u>	2		<u>12.20</u>	<u>4.92</u>	<u>4.92</u>	2		<u>9.84</u>
...	<u>-</u>	4		<u>-</u>	<u>-</u>	<u>-</u>	4		<u>-</u>
F.P. ...	<u>12.20</u>	2		<u>24.40</u>	<u>13.20</u>	<u>13.20</u>	2		<u>26.40</u>
...	<u>49.16</u>	4		<u>196.64</u>	<u>52.93</u>	<u>52.93</u>	4		<u>211.72</u>
...	<u>110.91</u>	1		<u>110.91</u>	<u>117.00</u>	<u>117.00</u>	1		<u>117.00</u>
Total ...	<u>229.16</u>			<u>499.12</u>					<u>499.12</u>

Mean actual sheer aft = .805

Mean standard sheer aft = .805

Mean actual sheer forward = .805

Mean standard sheer forward = .805

Length of enclosed superstructure forward of amidships = .56

" " aft of " = .1799

Correction = $\frac{119.01}{147.79} \times .805 = .805$

Correction = Difference between sums of products $\frac{18}{18} \left(.75 - \frac{S}{2L} \right) = \frac{10.16}{18} \left(.75 - \frac{.1477}{54.54} \right) = +.20$

limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

on for Tropical Freeboard.

for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 54.54

Summer freeboard = 6.54

Moulded draught (d) = 28.04

for Tropical freeboard and addition for freeboard = $\frac{d}{4}$ inches = 7.01

for Winter North Atlantic Freeboard (if d = ✓)

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ 16059

Tons per inch immersion at summer load water line

T = 55.18

Deduction = $\frac{\Delta}{40T}$ inches = 7.25

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	+	-
Depth Correction ...	<u>12.21</u>	<u>-</u>
Deduction for superstructures ...	<u>-</u>	<u>50.37</u>
Sheer correction ...	<u>20</u>	<u>-</u>
Round of Beam correction ...	<u>-</u>	<u>.04</u>
Correction for Thickness of Deck amidships ...	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. ...	<u>-</u>	<u>-</u>
Summer Freeboard =	<u>76.00</u>	<u>76.00</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<u>14.4</u>	Tropical Fresh Water Freeboard ...	<u>5.14</u>
Fresh Water Line " " ...	<u>7.4</u>	Fresh Water " " ...	<u>5.14</u>
Tropical Line " " ...	<u>7</u>	Tropical " " ...	<u>5.14</u>
Winter Line below " " ...	<u>7</u>	Winter " " ...	<u>5.14</u>
Winter North Atlantic Line " " ...	<u>7</u>	Winter North Atlantic " " ...	<u>5.14</u>

MARKING FORM

RECEIVED

RECEIVED

RECEIVED

26 SEP 1932

002853-002857-01281/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS, ON FREEBOARD AND SUPERSTRUCTURE DECKS									
← F & A R 1842 → ← UPPER DECK →									
Description of Hatchway	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
Dimensions of Hatchway	27' x 18'	42' x 18'	20' x 18'	11'6" x 18'	39' x 18'	40' x 18'	20'	12'6" x 6'	2'9" x 6'
COAMINGS	Height above Deck	30"	30"	30"	30"	30"	20"	18"	18"
	Thickness	.44	.56	.56	.44	.56	.44	.44	.44
	Stiffeners	7 x 3/4 x .44	12 x 3/4 x .50	12 x 3/4 x .50	7 x 3/4 x .44	12 x 3/4 x .50	7 x 3/4 x .44	none	none
	Brackets, Stays	3	4	3	1	3	2	3 x 5 x 3/8	none
HATCH BEAMS	Number	5	7	5	1	7	5	4 x 3 x 1/2	none
	Spacing	4'5"	5'2"	5'0"	5'7"	4'8"	5'0"	16' x 3/4	16' x 3/4
	Scantling and Sketch	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x 1/2	16' x 3/4
	Bearing Surface	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/2"	3/2"
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
HATCH COVERS	Material	wood						wood	wood
	Thickness	3"						3"	3"
	How fitted	5' x A						Thwart	Flare
	Bearing Surface	3"						3"	3"
Spacing of Cleats	23'	23'	23'	23'	23'	23'	23'	20'	20'
Number of Tarpaulins	3	3	3	3	3	3	2	2	2

*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?

Particulars of fiddley, funnel and ventilator coamings:—

Fiddley has 5" angle coaming, and steel covers over opening, secured by top. To opening in funnel which is riveted to steel plating on host deck.
 E.R. skylight coaming 4" c sides, 1/4" c centre. has strong steel covers.
 E.R. vent 4 - 2" diam. 7'9" coaming x .44, no stays } wood covers and
 R.R. " 2 c 1/4" " 6'0" " x .44, no stays } covers provided

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:—

none.

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

Queen deck space has vents on 7' x 9' bridge deck also poop, 1' x 1' dia. 18" 3/4" coaming, loose neck type. Hold vents are 10", 15", 27" and 30" diam. Generally 3" x 3/4" coamings. Six have high coamings & are stayed to deck. Wood covers and covers provided.

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

Double bottom tanks have 4" diam. forepeak airpiper on superstructure decks, 18" coaming. Same size airpiper in hull on upper deck. namely 5" diam. with 3/4" coamings. Wood plugs provided for all airpiper.

Particulars of Gangway Cargo and Coaling Ports:—

Steel coaling door (1' 18") in Queen deck space, hinged to shell, and fitted with two strongbacks.
 Steel coaling port (1' 18") in Queen deck space, hinged to shell and fitted with one strongback.



© 2021
 Lloyd's Register
 Foundation

Particulars of Scuppers and Sanitary Discharge Pipes —

Forecastle, bridge and poop are scuppered by 1" pipes with storm valve at outlets of each scupper. There are no toilets below the level of the upper deck. Discharges from officers' crew accommodation led overboard from fore and aft upper deck, have C.S. storm valves at outlets.

Particulars of Side Scuttles:

All portlights are provided with C.S. deadlights.

Particulars of Guard Rails:—

42" plate bulwark at extreme fore end of forecastle. 4" A.A. rail, stays 63" apart. Remainder of Fx. Bridge & Poop have 42" open rails (3 rods). 50" plate bulwark in mill, 8" A.A. rail, stays 50" apart.

Particulars of Gangways, Lifelines, etc.:—

Hand rails fitted on sides of house sides. Lifelines are arranged for, when required.

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 ...	102'	42"	50" x 17"	8	44.2	20.4
Forward Well ...	✓					

State position of each freeing port (F. and A. position and height above deck edge) } After Well:— evenly spaced. Lower edge 18" above deck.
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— } Forward Well:— One bar over each.
 Additional area where sheer is less than standard. ✓

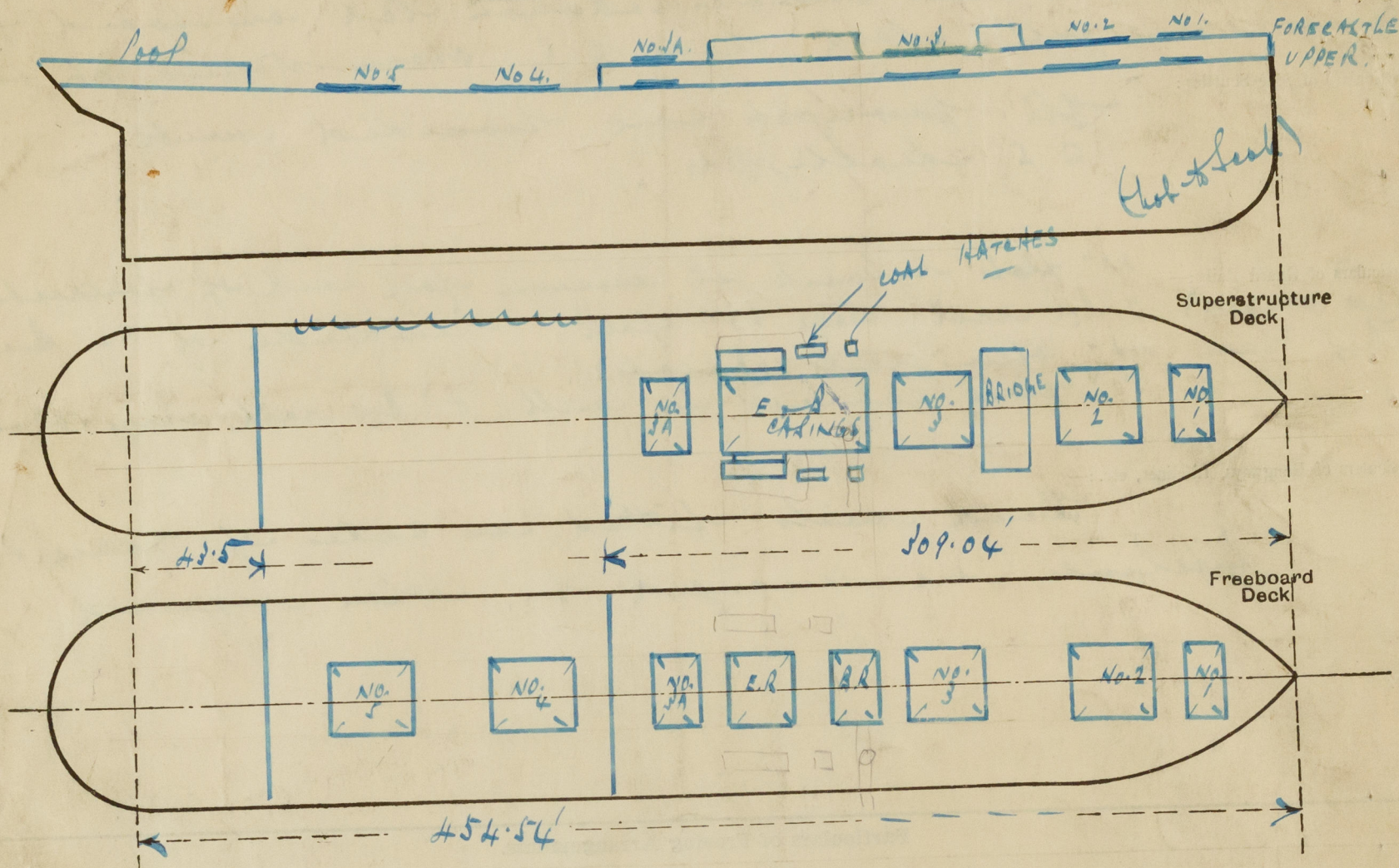
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	1/8"	1/8"	4 x 3 x 1/4 A.A.	25"	Lugged	1' 10" x 15" x 5 1/4"	19"	8' 6"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	1/8"	1/8"	3 x 3 x 5/16 A.A.	12"	None	1' 10" x 16" x 5 1/4"	20"	8' 6"
Bridge, Forward Bulkhead ...	✓							
Forecastle Bulkhead ...	✓							
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Not exposed.							
Exposed Machinery Casings on Superstructure Decks ...	1/2"	1/8"	3 x 3 x 1/4 A.A.	24"	None	24 x 60 (175) STOKER HOB 20" 24 x 56 (175) E.R. 18"	20"	7' 6"
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 ...	Steel Lunge door with 12 steel dogs, not passing this bulkhead. No.
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	Steel Lunge door, with 14 steel dogs, not passing this bulkhead. No.
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Not exposed.
Exposed Machinery Casings on Superstructure Decks ...	1/2" steel door (fisher), half bottom dog & top. Handle each side (stokers). Engine room door in after end, sliding track, handle both sides.
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:—



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

Vessel has screw stern.
 Displacement at 28 ft draft is 15,984 tons
 " " " " " " 15,242 " } Taken from
 Tons per inch at 28 " " " " 15.5 " } Owners Plans.
 " " " " " " 14.8 "

Vessel damaged while lying in water at
 No. 2, Bush Dock, Brooklyn N.Y.

Builder's name and yard number Swan Hunter & Wigham Richardson Ltd.

Names of sister ships

Owners

Fee £ 100.00

Received by me

Shaped a Red Jack.