

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD. N° 6863

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having FORECASTLE & LONG BRIDGE COMBINED

(Type of Superstructures.)

Ship's Name <b>LURLINE</b>	Nationality and Port of Registry <b>USA</b> <i>Los Angeles</i>	Official Number <b>231979</b>	Gross Tonnage <b>18021</b>	Date of Build <b>1932</b> <i>12 mo.</i>
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Port of Survey New York  
Date of Survey 2 Nov 1932  
Name of Surveyor John S. Heck  
Particulars of Classification 100 A1  
Class Contemplated

Moulded Dimensions: Length 605 Breadth 79 Depth 44.5  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 36486 tons  
Coefficient of fineness for use with Tables .706

<b>Depth for Freeboard (D)</b> Moulded depth ... <u>44.5</u> Stringer plate ... <u>.04</u> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>44.54</u>	<b>Depth correction</b> (a) Where D is greater than Table depth (D - Table depth) R = $(44.54 - 40.33) = 12.64$ (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) <u>79</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{79 \times 12}{50} = 18.96$ Ship's Round of Beam = <u>Flat</u> Difference <u>18.96</u> Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{18.96^2}{4} \times \frac{24}{605} = 1.97$
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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 ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<u>581</u>	<u>581</u>	<u>8'-3"</u>	<u>nil</u>	<u>581</u>
" overhang aft ...					
" overhang forward ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

Standard Height of Superstructure 7'-6"  
 " " R.Q.D. ...  
 Deduction for complete superstructure 42  
 Percentage covered  $\frac{S}{L} = \frac{581}{605} = 96.03$   
 " "  $\frac{S_1}{L} = \frac{581}{605} = 96.03$   
 " "  $\frac{E}{L} = \frac{581}{605} = 96.03$   
 Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required)) 95.11  
 Percentage from Table, Line B.  
 (corrected for absence of forecastle (if required))  
 Interpolation for bridge less than 2L (if required)  
 Deduction =  $42 \times 95.11 = 39.95$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>70.5</u>	1		<u>70.5</u>	<u>46</u>	<u>46</u>	1		<u>46</u>
$\frac{1}{4}$ L from A.P. ...	<u>31.37</u>	4		<u>125.48</u>	<u>21</u>	<u>21</u>	4		<u>84</u>
$\frac{2}{4}$ L " ...	<u>7.75</u>	2		<u>15.5</u>	<u>5</u>	<u>5</u>	2		<u>10</u>
Amidships ...		4		<u>0</u>	<u>0</u>	<u>0</u>	4		<u>0</u>
$\frac{3}{4}$ L from F.P. ...	<u>15.51</u>	2		<u>31.02</u>	<u>19</u>	<u>19</u>	2		<u>38</u>
$\frac{1}{4}$ L " ...	<u>62.74</u>	4		<u>250.96</u>	<u>64</u>	<u>64</u>	4		<u>256</u>
F.P. ...	<u>141</u>	1		<u>141</u>	<u>139</u>	<u>139</u>	1		<u>139</u>
Total ...				<u>634.46</u>					<u>573</u>

Mean actual sheer aft = 66%  
 Mean standard sheer aft = 66%  
 Mean actual sheer forward = Excess  
 Mean standard sheer forward = Excess  
 Length of enclosed superstructure forward of amidships = 0  
 " " aft of " = 0  
 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{634.46 - 573}{18} \left( 75 - \frac{581}{1210} \right) = 3.4 \times 27 = 92$   
 If limited on account of midship superstructure. ✓  
 If limited to maximum allowance of  $\frac{1}{2}$  ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

NOT REQUIRED

Depth to Freeboard Deck = 44-6 1/2 Ft.Summer freeboard = 16-6 1/2Moulded draught (d) = 28-0

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 26141$ 

Tons per inch immersion at summer load water line

T = 88.57Deduction =  $\frac{\Delta}{40T}$  inches $\frac{26141}{40 \times 88.57} = 7.3$ say 7 1/4

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

130.75 68+706  
1.36

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

DESIGNED FOR 28' LOAD DRAUGHT

130.75  
133.236

+ -

12.6639.9592193594.51105.2239.95198.5SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Weld Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ... 7 1/4Tropical Line " " ... ✓Winter Line below " " ... ✓Winter North Atlantic Line " " ... ✓

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

16'-6 1/2" for all seasons.  
 15'-11 1/4"  
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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	
Description of Hatchway	N <sup>o</sup> 1
Dimensions of Hatchway	21'x10'
COAMINGS	Height above Deck ... 29" Thickness ... 4" Stiffeners ... 7x3x40 BA Brackets, Stays ... 44
HATCH BEAMS	Number ... 3 Spacing ... 4'-0" Scantling and Sketch ... 3x3x38 10x38 Bearing Surface ... 3
FORE AND AFTERS	Number ... NONE Spacing ... Unsupported Lengths ... Scantling and Sketch ... Bearing Surface ...
HATCH COVERS	Material ... WOOD Thickness ... 2 1/2" How fitted ... F.A. Bearing Surface ... 3"
Spacing of Cleats	2'-0"
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:— PROTECTED C + B DECK AND BY HOUSES ON B, A & BOAT DECKS

Particulars of Flush Bunker Scuttles:—

NONE

Particulars of Companionways:—

NONE

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

VENTILATOR IN FORWARD WELL (ON C DECK) 36" COAMING x 40"

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

STRONGLY CONSTRUCTED NOT LESS THAN 18" ABOVE DECK

Particulars of Gangway Cargo and Coaling Ports:—

1 GANGWAY PORT ON D DECK

4 PORTS " E "

9 " CARGO " F "

All closed with efficient water tight doors.

Particulars of Scuppers and Sanitary Discharge Pipes:—

Led overboard through 2 automatic non return valves, both in accessible positions

Particulars of Side Scuttles:—

Port lights in D E + F decks fitted with efficient portable dead lights

Particulars of Guard Rails:— ON C DECK

Bulwarks in Forward Well Strong + efficient rails aft. Height 3'-6"

Particulars of Gangways, Lifelines, etc.:—

Not 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						
Forward Well	62'-0"	3'-9"	2-21x12 1-31x17	3	6.3	6.3
State position of each freeing port (F. and A. position and height above deck edge) State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 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	32	32	5x3x32	3'-0"	1 RIVET THRU COAMING 2" x D "	2'-6x5'-3 1/2	15"	8'-3"
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	
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	STRONG TEAK DOORS.
Bridge, Forward Bulkhead	YES.
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	

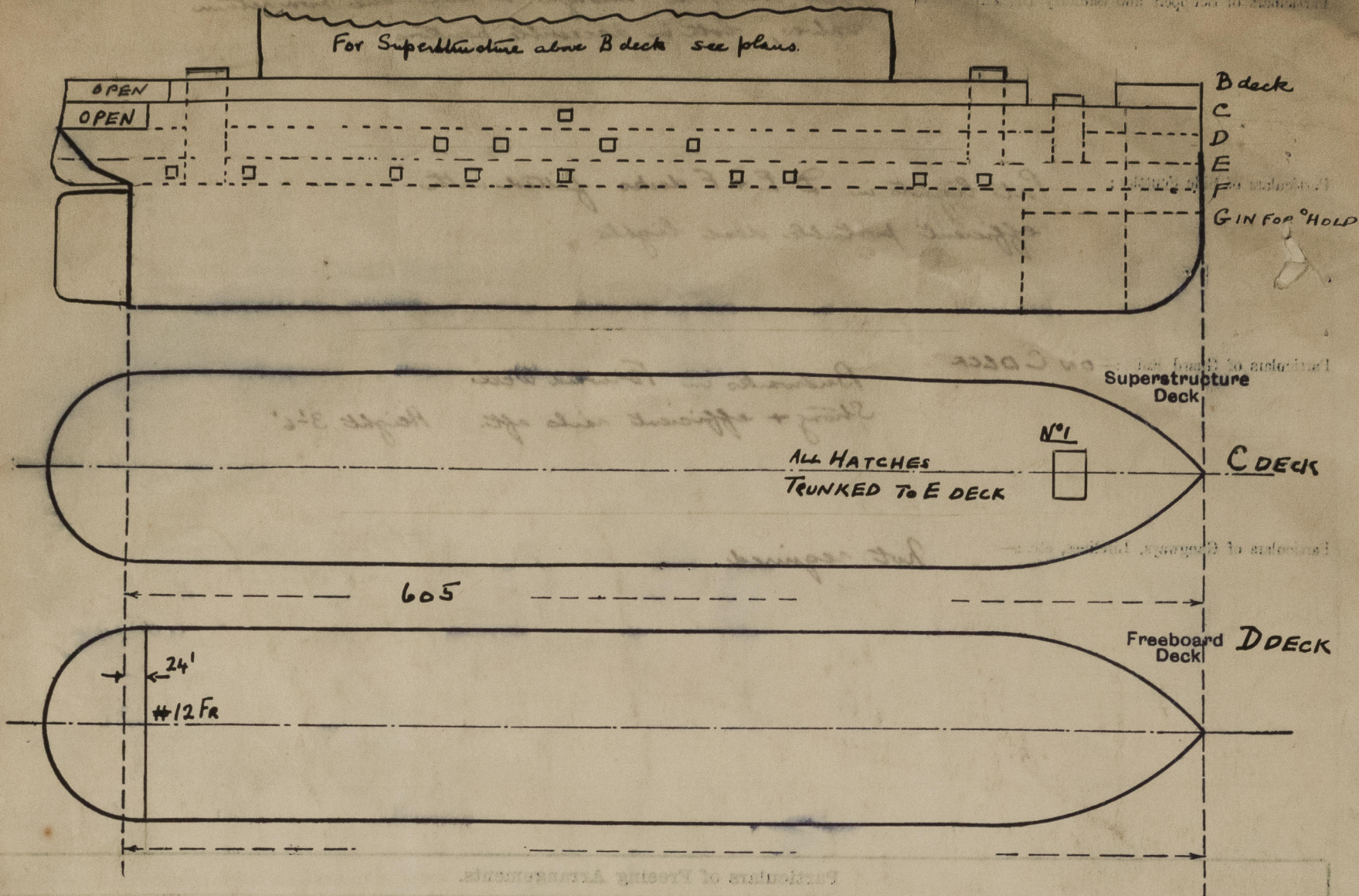


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:— *U.S. GOVT FREEBOARD ALREADY ASSIGNED & MARKED ON VESSEL BY AMERICAN BUREAU OF SHIPPING*

	Ships Port		
Actual	19	64	139
Standard	15.51	62.74	141
Diff	3.49	1.26	-
	2.23	.81	-
	15.51	62.74	139
	17.74	63.55	139

Builder's name and yard number *Bethlehem S. B. Corporation 1447.*

Names of sister ships *Maniposa Monterey*

Owners *The Oceanic S.S. Co.*

Fee £ *1* Received by me *A/C NOT RENDERED. OWNERS HAVE NOT REQUESTED ASSIGNMENT*



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