

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ^{Motor}Steamer, Sailing Ship, Tanker
having Raised Quarter Deck & Forecastle

Port of Survey London

Date of Survey 17th Jan. 1933

Name of Surveyor L. Young

Particulars of Classification +100A-7
S.S. Reg. No 3-9.28

(Type of Superstructures.) Annular + B.T. 2/1/34.

Ship's Name <u>(*) LEE LEE</u>	Nationality and Port of Registry <u>British Liverpool</u>	Official Number <u>139195-</u>	Gross Tonnage <u>144</u>	Date of Build <u>1916-6</u>
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Moulded Dimensions: Length 89.0 Breadth 19.0 Depth 10.0

Moulded displacement at moulded draught = 85 per cent. of moulded depth 296 tons

Coefficient of fineness for use with Tables .721

Depth for Freeboard (D) Moulded depth <u>10.00</u> Stringer plate <u>.02</u> Sheathing on exposed deck <u>2 1/2" wood deck on Forecastle</u> $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>10.02</u>	Depth correction (a) Where D is greater than Table depth $(D - \text{Table depth}) R = (10.02 - 5.73) \cdot 685 = + 2.80"$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures <input checked="" type="checkbox"/>	Round of Beam correction Moulded Breadth (B) <u>19.00</u> Standard Round of Beam = $\frac{B \times 12}{50} = 4.56"$ Ship's Round of Beam <u>4 3/4" = 4.75"</u> Difference <u>.19" excess</u> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.19}{4} \times .557 = -.03"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	✓				
" overhang	✓				
R.Q.D. enclosed	<u>24'-3"</u>	<u>24.25</u>	<u>2'-6"</u>	<u>2.50</u> <u>6.00</u>	<u>10'-10"</u>
" overhang	✓				
Bridge enclosed... ..	✓				
" overhang aft	✓				
" overhang forward	✓				
F'cle enclosed	<u>15'-0"</u>	<u>15.00</u>	<u>2'-17"</u> <u>2'-6"</u> <u>+ 2 1/2" sheath</u>	<u>2.38</u> <u>3.00</u>	<u>11'-9"</u>
" overhang	✓				
Trunk aft	✓				
" forward	✓				
Tonnage opening aft	✓				
" " forward	✓				
Total	<u>39.25</u>	<u>39.25</u>			<u>22.00</u>

Standard Height of Superstructure	<u>6'-0"</u>
" " R.Q.D.	<u>3.00</u>
Deduction for complete superstructure	<u>14'-90"</u>
Percentage covered $\frac{S}{L} =$	<u>44.10%</u>
" " $\frac{S_1}{L} =$	<u>44.10%</u>
" " $\frac{E}{L} =$	<u>24.72%</u>
Percentage from Table, Line A. (corrected for absence of fore-castle (if required))	<u>12.36%</u>
Percentage from Table, Line B. (corrected for absence of fore-castle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	<u>14.90 x .1236 = - 1.84"</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>18.90</u> <u>12.0</u>	1		<u>18.90</u>	<u>12.00</u>	<u>12.00</u>	1		<u>12.00</u>
1/8 L from A.P.	<u>8.41</u> <u>4.5</u>	4		<u>33.64</u>	<u>3.95</u>	<u>3.95</u>	4		<u>15.80</u>
2/8 L "	<u>2.08</u> <u>0</u>	2		<u>4.16</u>	<u>.99</u>	<u>.99</u>	2		<u>1.98</u>
Amidships	<u>0</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
2/8 L from F.P.	<u>4.16</u> <u>4.5</u>	2		<u>8.32</u>	<u>4.34</u>	<u>4.18</u>	2		<u>8.36</u>
1/8 L "	<u>16.82</u> <u>17.5</u>	4		<u>67.28</u>	<u>17.38</u>	<u>16.89</u>	4		<u>67.56</u>
F.P.	<u>37.80</u> <u>38.5</u>	1		<u>37.80</u>	<u>38.00</u>	<u>37.82</u>	1		<u>37.82</u>
Total	<u>170.10</u>			<u>170.10</u>					<u>143.52</u>

Mean actual sheer aft = Deficient
Mean standard sheer aft =

Mean actual sheer forward = Excess
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = L
" " aft of " =

Sheer aft	Standard	Actual
18.90	12.00	12.00
8.41	3.95	3.95
2.08	.99	.99
4.16	4.34	4.18
16.82	17.38	16.89
37.80	38.00	37.82
<u>52.95</u>	<u>50.37</u>	<u>53.24</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{26.58}{18} \left(.75 - \frac{22.95}{170} \right) = +.78"$
52.95

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

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>Ft.</u> Summer freeboard = <u> </u> Moulded draught (d) = <u> </u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u> </u> Addition for Winter North Atlantic Freeboard (if required) = <u> </u>	Deduction for Fresh Water. 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 = <u> </u>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.721 + .08}{1.36} = \frac{.801}{1.36}$ <table border="1"> <tr> <th></th><th>+</th><th>-</th></tr> <tr> <td>Depth Correction</td><td><u>2.80</u></td><td><u>-</u></td></tr> <tr> <td>Deduction for superstructures</td><td><u>-</u></td><td><u>1.84</u></td></tr> <tr> <td>Sheer correction</td><td><u>.78</u></td><td><u>-</u></td></tr> <tr> <td>Round of Beam correction</td><td><u>-</u></td><td><u>.03</u></td></tr> <tr> <td>Correction for Thickness of Deck amidships</td><td><u>-</u></td><td><u>-</u></td></tr> <tr> <td>Other corrections, scantlings, etc.</td><td><u>-</u></td><td><u>-</u></td></tr> <tr> <td></td><td><u>3.58</u></td><td><u>1.87</u></td></tr> </table> Summer Freeboard = <u>10.88</u>		+	-	Depth Correction	<u>2.80</u>	<u>-</u>	Deduction for superstructures	<u>-</u>	<u>1.84</u>	Sheer correction	<u>.78</u>	<u>-</u>	Round of Beam correction	<u>-</u>	<u>.03</u>	Correction for Thickness of Deck amidships	<u>-</u>	<u>-</u>	Other corrections, scantlings, etc.	<u>-</u>	<u>-</u>		<u>3.58</u>	<u>1.87</u>
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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		Tropical Fresh Water Freeboard	
Fresh Water Line " "		Fresh Water " "	
Tropical Line " "		Tropical " "	
Winter Line below " "		Winter " "	
Winter North Atlantic Line " "		Winter North Atlantic " "	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces? *Only the centre fore & afters are steel shod. All the side fore & afters require to be fitted with shoes, and one or two of these require renewal.*

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:— *Funnel & Ventilator Coamings in efficient condition. Engine Room Skylight—thoroughly constructed of steel.*

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:— *One leading down into Forecastle with strong steel hood. One to cabin aft, protected in steel casing with sliding wood roof and wood door.*

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

One on Fore'st'le Head, with 13" coaming, to Fore'st'le. One at each end of hatch, with 3-3" coaming, to hold. All fitted with canvas covers.

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

One on Fore'st'le Bulkhead from F.P. tank. 3 " R. & Sh. " A.P. " Wooden plugs & canvas covers provided.

Particulars of Gangway Cargo and Coaling Ports:—

None



Particulars of Scuppers and Sanitary Discharge Pipes:—

One forward in F.D. St. discharging through head, with
stone valve fitted as ship rule.

Particulars of Side Scuttles:—

Side scuttles in Forecastle of approved design, fitted
with hinged steel deadlights.


Particulars of Guard Rails:—

On Forecastle chains 3'-6" high ^{from deck}, stanchions 4'-2" apart fitted
on bulwarks.
Bulwarks on R. P. St. efficiently constructed.

Particulars of Gangways, Lifelines, etc.:—

Suitable provision for rigging life lines.

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	24'-3"	2'-9"	None			8.92 ϕ
Forward Well	46'-3"	2'-9"	2'-3" x 16" 	4	12.0 sq. ft.	11.12 ϕ

State position of each freeing port
(F. and A. position and height above deck edge)

After Well:— ✓

Forward Well:— 7, 13, 28 and 39 ft. from R. P. St. Bulwark.

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

3 fitted with shutters
after one fitted with 2 heavy bars

Additional area where sheer is less than standard.

9" above deck.

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 ...	✓	32	3 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 36	30"	Free top, Coaming bottom	None	✓	2'-6"
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	✓	28		2'-8"		3'-7" x 21"	19"	3'-6" 5'-6" over companion
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓	32	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 28	21"	Bracket top, Coaming bottom	24" x 24" on top of casing	✓	24"
Exposed Machinery Casings on Super- structure Decks	✓							
Machinery Casings within Superstruc- tures 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 ...	✓ no openings
Bridge, After Bulkhead	✓
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	Hinged wood door, operated from both sides.
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	Hinged steel plate, " " "
Exposed Machinery Casings on Super- structure Decks	✓
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships ...	✓



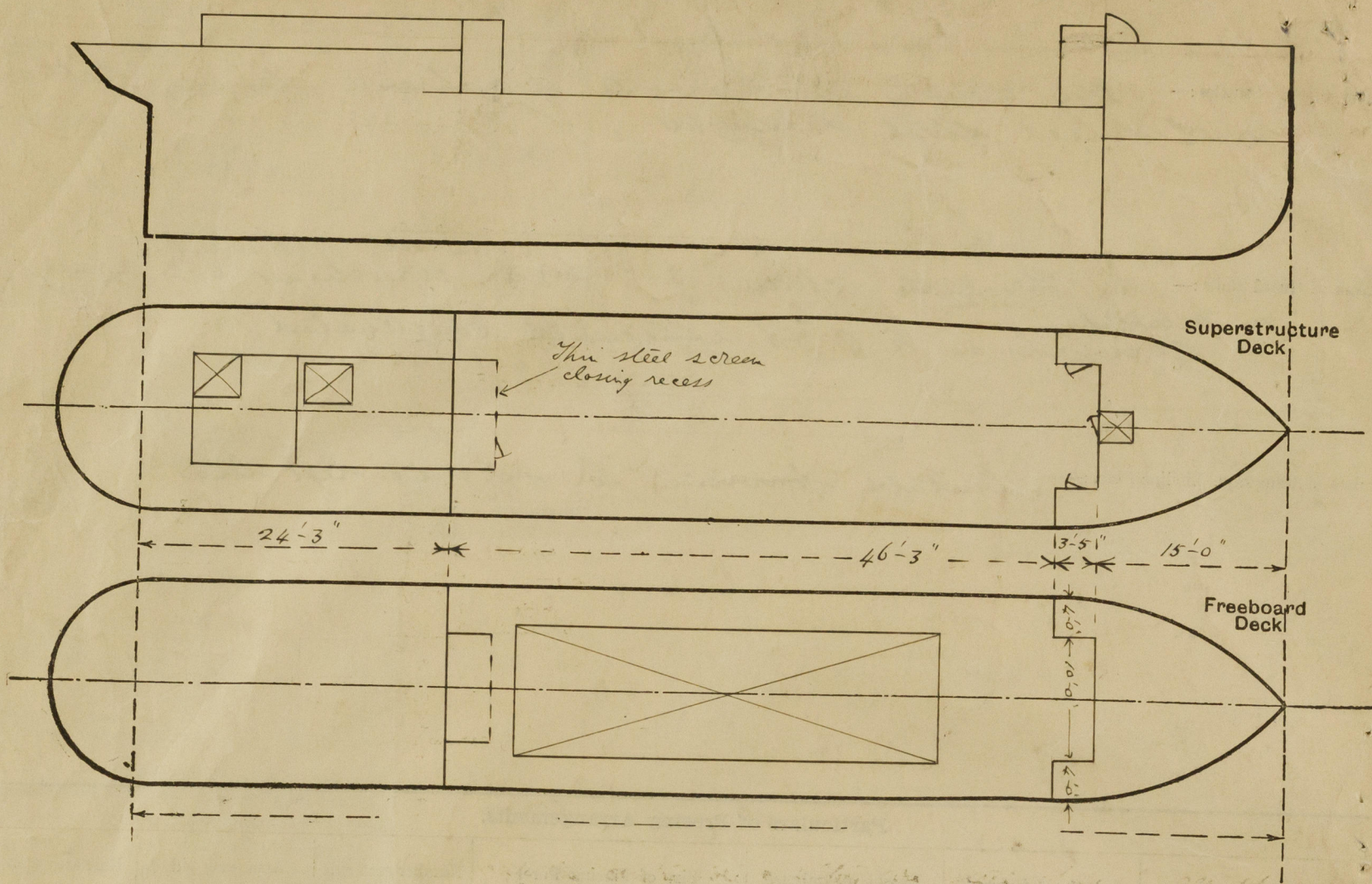
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Annuitz

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 shewn on the following sketches:—



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

Vessel examined afloat.

Builder's name and yard number *Bennie Forrestt S.B. & S.S. Co.*

No. 1269

Names of sister ships *Bisto*

Owners *F. J. Everard & Sons.*

Fee £ *3 8 0*

Exp. *5 6*

Received by me

(*26* 30 JAN 1933)



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