

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

19215.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Raised Quarter Deck, and Forecastle.*Port of Survey *Leith*

(Type of Superstructures.)

Date of Survey *while building*Name of Surveyor *Ernest Saunders*Particulars of Classification *+100A1*

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
JERSEY QUEEN.	U.K. London	✓ 165361	<del>910</del> 910	1937?
Moulded Dimensions: Length 195'0"	Breadth 32'1"	Depth 15'2 1/2"	✓ RD D <sup>11</sup> 19'-6"	
Moulded displacement at moulded draught = 85 per cent. of moulded depth			1916 1669	tons
Coefficient of fineness for use with Tables		<del>7354</del> 722		

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <i>15'2 1/2"</i>	(a) Where D is greater than Table depth (D - Table depth) R = $(15'24 - 13'00) \times 1.5 = +3'36$	Moulded Breadth (B) <i>32'08"</i>
Stringer plate ... .. <i>0'032"</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $2'24$	Standard Round of Beam = $\frac{B \times 12}{50} = 7'7"$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = $7'75"$
Depth for Freeboard (D) = <i>15'24"</i>		Difference = $0'05"$
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{0'05}{4} \times 2568 = 3'16$

## 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 ... ..	<i>122'</i>	<i>122'00"</i>	<i>4'3 1/2"</i>	-	<i>122'00"</i>
" overhang ... ..	<i>none</i>				
Bridge enclosed ... ..					
" overhang aft ... ..					
" overhang forward ... ..	<i>22'30"</i>	<i>22'30"</i>	<i>7'0"</i>	-	<i>22'30"</i>
F'cle enclosed <i>apart</i> ... ..	<i>2'58"</i>	<i>60"</i>			<i>60"</i>
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" forward ... ..					
Total ... ..	<i>145'50"</i>	<i>144'90"</i>			<i>144'90"</i>

Standard Height of Superstructure <i>6'0"</i>	
" " R.Q.D. <i>3'633"</i>	
Deduction for complete superstructure <i>25'5"</i>	
Percentage covered $\frac{S}{L} = 74.62$	
" " $\frac{S_1}{L} = 74.32$	
" " $\frac{E}{L} = 74.32$	
Percentage from Table, Line A. <i>68.31</i>	
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = $25.5 \times 68.31 = -17.42$	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<i>29'50"</i>	1		<i>29'50"</i>	<i>22"</i>	<i>29'91"</i>	1		<i>29'91"</i>
1/8 L from A.P. ... ..	<i>13'125"</i>	4		<i>52'50"</i>	<i>9 3/4"</i>	<i>13'31"</i>	4		<i>53'24"</i>
3/8 L " ... ..	<i>3'245"</i>	2		<i>6'49"</i>	<i>2 1/2"</i>	<i>3'29"</i>	2		<i>6'58"</i>
Amidships ... ..	-	4		-	-	-	4		-
5/8 L from F.P. ... ..	<i>6'49"</i>	2		<i>12'98"</i>	<i>8 1/4"</i>	<i>8'25"</i>	2		<i>16'50"</i>
7/8 L " ... ..	<i>26'25"</i>	4		<i>105'00"</i>	<i>33 1/2"</i>	<i>33'50"</i>	4		<i>134'00"</i>
F.P. ... ..	<i>59'00"</i>	1		<i>59'00"</i>	<i>75"</i>	<i>75'00"</i>	1		<i>75'00"</i>
Total ... ..				<i>265'47"</i>					<i>315'23"</i>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{49'76}{18} \left( 75 - \frac{3731}{2 \times 144'90} \right) = -1'04$$

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.

*Raised Quarter*  
Depth to Freeboard Deck = *19'53"*  
Summer freeboard = *4'94"*  
Moulded draught (d) = *14'59"*

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = *3'65" = 3 3/4"*  
Addition for Winter North Atlantic Freeboard (if required) = *5 3/4"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line *(@ 14'8 3/4")*  
 $\Delta = 1931$   
Tons per inch immersion at summer load water line  
 $T = 12'45"$

Deduction =  $\frac{\Delta}{40 T}$  inches  
=  $\frac{1931}{40 \times 12'45}$   
= *3'88"*  
= *4"*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{722 + 68}{1.36} = \frac{1.402}{1.36}$ 

	+	-
Depth Correction ... ..	<i>3'36"</i>	-
Deduction for superstructures ... ..	-	<i>17'42"</i>
Sheer correction ... ..	-	<i>1'04"</i>
Round of Beam correction ... ..	-	-
Correction for Thickness of Deck amidships ... ..	<i>51'50"</i>	-
Other corrections, scantlings, etc. ... ..	-	-
	<i>54'86"</i>	<i>18'46"</i>

Summer Freeboard = *59'34"*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Raised Quarter*, Steel Deck: *4'11 1/4"*

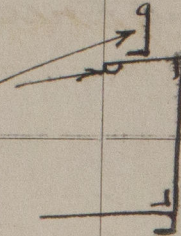
Tropical Fresh Water Line above Centre of Disc ... ..	<i>7 3/4"</i>
Fresh Water Line " " ... ..	<i>4"</i>
Tropical Line " " ... ..	<i>3 3/4"</i>
Winter Line below " " ... ..	<i>3 3/4"</i>
Winter North Atlantic Line " " ... ..	<i>5 3/4"</i>

Tropical Fresh Water Freeboard ... ..	<i>4'11 1/4"</i>
Fresh Water " " ... ..	<i>4'3 1/2"</i>
Tropical " " ... ..	<i>4'7 1/4"</i>
Winter " " ... ..	<i>4'7 1/2"</i>
Winter North Atlantic " " ... ..	<i>5'3"</i>
	<i>5'5"</i>

24 NOV 1936



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
on Upper D <sup>ck</sup> on R.Q.D <sup>ck</sup>										
Description of Hatchway			... .. N <sup>o</sup> 1		... .. N <sup>o</sup> 2					
Dimensions of Hatchway			... .. 38' x 18'		38' x 18'					
COAMINGS	{	Height above Deck	... .. 3'-3"		3'-3"					
		Thickness	Sides	... .. .44		.44				
			Ends	... .. .44		.44				
		Stiffeners	... .. 10 x 3 1/2 x 4 1/2		10 x 3 1/2 x 4 1/2					
		Brackets, Stays	... .. 8'-0" apart		8'-0"					
HATCH BEAMS	{	Number	... .. 5		5					
		Spacing	... .. 6'-5"		6'-5"					
		Scantling and Sketch	... .. 19" x 37"		16" x 36"					
			4" x 3" x 4 1/2"		4" x 3" x 4 1/2"					
		Bearing Surface	... .. 2 1/2"		2 1/2"					
FORE AND AFTERS	{	Number	... .. none		none					
		Spacing	... ..							
		Unsupported Lengths	... ..							
		Scantling* and Sketch	... ..							
		Bearing Surface	... ..							
HATCH COVERS	{	Material	... .. W.P.		W.P.					
		Thickness	... .. 3"		3"					
		How fitted	... .. four apt		four apt					
		Bearing Surface	... .. 3" x 4"		3" x 4"					
Spacing of Cleats			... .. 24"		24"					
Number of Tarpaulins			... .. Two		Two					
*Are wood fore and afters steel shod at all bearing surfaces? none										
Are battens and wedges efficient and in good condition? yes										
Are tarpaulins in good condition and in accordance with rule requirements? yls										
Are lashings provided in accordance with rule requirements? yls										
N <sup>o</sup> 1 Hatchway. 7 ring bolts, also 6 eye plates each side.										
N <sup>o</sup> 2 " " " " each side.										

Particulars of fiddle, funnel and ventilator coamings:—

*not yet completed.*

*The fiddle, funnel and ventilator coamings are completed to Surveyors satisfaction.*

*The fiddle covers are of steel plate and permanently attached with hinges and secured by metal clips.*

Particulars of Flush Bunker Scuttles:—

*none.*

Particulars of Companionways:—

*none.*

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

*On Fore D<sup>ck</sup>:— Two x 6" dia x 30 x 3'-2 1/2" above deck: to crew shack.*

*" Upper " :— One x 6" " x 30 x 3'-0" " " " " to store.*

*" R.Q.D<sup>ck</sup> " :— Two x 12" " x 34 x 3'-0" " " " " to hold.*

*" Top of House:— One x 6" " x 25 x 1'-0" " house: to Engineers mess room.*

*" Top of House:— Four x 5" " x 25 x 2'-9" " Bridge room: " Cabin: fitted with w.t. screw down, mushroom type.*

*All Ventilator coaming (excepting mushroom type) are supplied with wood plugs and canvas covers.*

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

*On Fore D<sup>ck</sup>:— One x 2 1/2" dia x 1'-6" high, (protected by spiriting), to Fore Peak Tank.*

*" Upper " :— One x 3" " x 3'-0" " " " " " to N<sup>o</sup> 1 D.B. Tank.*

*" " " :— Two x 2 1/2" " x 2'-6" " " " " " to N<sup>o</sup> 2 " " "*

*" " " :— One x 4" " x 2'-6" " " " " " to Bunker space.*

*" " " :— One x 2 1/2" " x 2'-6" " " " " " to N<sup>o</sup> 3 D.B. Tank.*

*" " " :— Two x 2 1/2" " x 2'-6" " " " " " to after peak tank & to after store.*

*All air pipes are supplied with wood plugs & have snifting holes.*

Particulars of Gangway Cargo and Coaling Ports:—

*none.*



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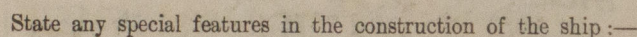
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



part 1

File. 23.50

Recess  $\frac{2.5 \times 13}{27} = \frac{1.20}{22.30}$  ✓ equivalent overhead  
equivalent method

Names of sister ships                     

Fee £ 8 : 0 0 Received by me \_\_\_\_\_  
*To be charged with First Entry fees*