

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

27 DEC 1932

Index. No. 25207  
(For London Office only.)

9 DEC 1932

 Computation of Freeboard for Steamer, Sailing Ship, Tanker  
 having *Prop, bridge and funnel etc.*

(Type of Superstructures.)

Port of Survey *Hamburg*Date of Survey *6th Dec 1932*Name of Surveyor *H. Goring*Particulars of Classification *+100 A1*  
*S.S. No. 3-29*
 Ship's Name *"Dicto"* Nationality and Port of Registry *Norwegian Oslo* Gross Tonnage *3778* Date of Build *1917*  
*7 mo.*

 Moulded Dimensions: Length *341* Breadth *48* Depth *27'3"*  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *8766* tons  
 Coefficient of fineness for use with Tables *0.81* *812* *8795*

 Depth for Freeboard (D)  
 Moulded depth ... *27'25"*  
 Freeboard plate ... *0.035*  
 Correction on exposed deck  
 $\left(\frac{L-S}{L}\right) =$ 
Depth for Freeboard (D) = *27'30"*
 Depth correction  
 (a) Where D is greater than Table depth  
 (D-Table depth) R =  
 $(27.30 - 22.73) 2.623 = +11.99$   
 (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) *48'00"*  
 Standard Round of Beam =  $\frac{B \times 12}{50} = 11.52$   
 Ship's Round of Beam = *12*  
 Difference *0.48*  
 Restricted to  
 Correction =  $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.48}{4} \times .5958 = -.07$ 

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Thoop enclosed ...	<i>29.42</i>	<i>29.42</i>	<i>7'6"</i>		<i>29.42</i>
Overhang ...	<i>none</i>				
Q.D. enclosed ...	<i>none</i>				
Overhang ...	<i>none</i>				
Bridge enclosed...	<i>72.92</i>	<i>72.92</i>	<i>7'6"</i>		<i>72.92</i>
Overhang aft ...	<i>none</i>				
Overhang forward	<i>none</i>				
Deck enclosed ...	<i>35.50</i>	<i>35.50</i>	<i>7'6"</i>		<i>35.50</i>
Overhang ...	<i>none</i>				
Stem aft ...	<i>none</i>				
Forward ...	<i>none</i>				
Manoeuvring opening aft	<i>none</i>				
Forward	<i>none</i>				
Total ...	<i>137.84</i>	<i>137.84</i>			<i>137.84</i>

 Standard Height of Superstructure *6.91*  
 " " R.Q.D. *✓*  
 Deduction for complete superstructure *38.07*  
 Percentage covered  $\frac{S}{L} = 40.42\%$   
 $\frac{S_1}{L} = 40.42\%$   
 $\frac{E}{L} = 40.42\%$   
 Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required))  
 Percentage from Table, Line B. *27.86%*  
 (corrected for absence of forecastle (if required))  
 Interpolation for bridge less than 2L (if required)  
 Deduction =  $38.07 \times .2786 = -10.61$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<i>44.10</i>	<i>1</i>		<i>44.10</i>	<i>54.0</i>	<i>54.0</i>	<i>1</i>		<i>54.0</i>
A.P. ...	<i>19.62</i>	<i>4</i>		<i>78.48</i>	<i>22.12</i>	<i>22.12</i>	<i>4</i>		<i>88.48</i>
...	<i>4.85</i>	<i>2</i>		<i>9.70</i>	<i>5.53</i>	<i>5.53</i>	<i>2</i>		<i>11.06</i>
...		<i>4</i>					<i>4</i>		
F.P. ...	<i>9.70</i>	<i>2</i>		<i>19.40</i>	<i>12.05</i>	<i>12.05</i>	<i>2</i>		<i>24.10</i>
...	<i>39.25</i>	<i>4</i>		<i>157.00</i>	<i>48.19</i>	<i>48.19</i>	<i>4</i>		<i>192.76</i>
...	<i>88.20</i>	<i>1</i>		<i>88.20</i>	<i>123.0</i>	<i>123.0</i>	<i>1</i>		<i>123.00</i>
Total ...				<i>396.88</i>					<i>493.40</i>

 Mean actual sheer aft = *even*  
 Mean standard sheer aft =

 Mean actual sheer forward = *even*  
 Mean standard sheer forward =

 Length of enclosed superstructure forward of amidships = *.066*  
 " " aft of " = *.148*

 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{96.52}{18} \times \left( \frac{.75 - .2021}{.5479} \right) = -2.94$ 

 Limited on account of midship superstructure.  $-2.94 \times \frac{.166}{.200} = -2.44$  If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

Correction for Tropical Freeboard.

Correction for Winter and Winter North Atlantic Freeboard.

 Depth to Freeboard Deck = *27'30"*  
 Summer freeboard = *4'83"*  
 Moulded draught (d) = *22'47"*

Reduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $5.62 = 5\frac{1}{2}$ 

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 8507$ 

Tons per inch immersion at summer load water line

 $T = 34.25$ Deduction =  $\frac{\Delta}{40T}$  inches $= 6.21$  $= 6\frac{1}{4}$ 

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient

 $\frac{812 + .65}{1.36} = \frac{1.492}{1.36}$ 

	+	-
Depth Correction ...	<i>11.99</i>	
Deduction for superstructures ...		<i>10.61</i>
Sheer correction ...		<i>2.44</i>
Round of Beam correction...		<i>.07</i>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		
	<i>11.99</i>	<i>13.12</i>

Summer Freeboard = *58.09*

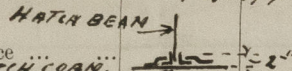

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ...	<i>11 3/4</i>	<i>299</i>	Tropical Fresh Water Freeboard ...	<i>4' 10"</i>	<i>1473</i>
Fresh Water Line " " ...	<i>6 1/4</i>	<i>159</i>	Fresh Water " " ...	<i>3' 10 1/4"</i>	<i>1174</i>
Tropical Line " " ...	<i>5 3/4</i>	<i>140</i>	Tropical " " ...	<i>4' 3 3/4"</i>	<i>1314</i>
Winter Line below " " ...	<i>5 1/2</i>	<i>140</i>	Winter " " ...	<i>4' 4 1/2"</i>	<i>1333</i>
Winter North Atlantic Line " " ...			Winter North Atlantic " " ...	<i>5' 3 1/2"</i>	<i>1613</i>

30 DEC 1932



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway				No. 1	No. 2	No. 4	No. 5	No. 6		
Dimensions of Hatchway				25'-17"	25'-17"	25'-17"	25'-17"	12'-8"-17"		
COAMINGS	{	Height above Deck	33"							
		Thickness	Sides	.44	do.	do.	do.	do.		
			Ends	.44						
		Stiffeners	6	7 x 3 x .40						
		Brackets, Stays	2	slugs						
HATCH BEAMS	{	Number	5					2		
		Spacing	50"					50"		
		Scantling and Sketch		4 x 3 x .44						
				14 x 21 x .36	do.	do.	do.	do.		
			4 x 3 x .44							
		Bearing Surface								
FORE AND AFTERS	{	Number								
		Spacing								
		Unsupported Lengths								
		Scantling and Sketch								
		Bearing Surface								
HATCH COVERS	{	Material	pine							
		Thickness	2 3/4"	do.	do.	do.	do.			
		How fitted	fore & aft							
		Bearing Surface	2 1/4"							
Spacing of Cleats				24"						
Number of Tarpaulins				3	do.	do.	do.	do.		

Bunker Latches on the brage dk and on the freeboard dk made the brage space one in efficient condition

\*Are wood fore and afters steel shod at all bearing surfaces? none fitted

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 — *Fiddle lap 8" 3" above bridge deck.  
Openings in fiddle lap closed by steel covers permanently  
attached. Funnel and ventilator coamings efficiently  
riveted to fiddle lap.*

Particulars of Flush Bunker Scuttles:—

now

Particulars of Companionways:— One companion aft for new keel poop space of steel. Steel hinged door at after end  $23^{\circ} \times 52^{\circ}$ ; sill  $29^{\circ}$  above poop deck. Door fitted with turnbuckles and capable of being manipulated from both sides.

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

All ventilators on forehead and superstructure decks are fitted with coverings 36" high above deck and efficiently riveted.

All mutilators are provided with work in plays and canvas covers.

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

All air pipes on freeboard deck and forecabin deck are of substantial construction and the height from deck to the opening is 36".

Air pipes on poop deck aft are 12" above deck.

All air pipes are fitted with wooden plugs and canvas covers.

Particulars of Gangway Cargo and Coaling Ports :—

none.

Dicto

27 DEC 1932

Particulars of Scuppers and Sanitary Discharge Pipes —

Particulars of Scupperns and Sanitary Discharge Pipes —

3 scupperns on forward well deck 5" x 6" above freeboard deck on each side.  
3 " after " 5" x 6" " "  
2 scupperns on freeboard deck in bridge space 3½" diam. below freeboard deck, closed by wooden plugs. All sanitary discharge pipes are fitted with storm valves.

Particulars of Side Scuttles :

No side scuttles below foreboard deck.

Side snuffles in forehead and gap space are fitted with permanently attached dead lights.

Particulars of Guard Rails :—

On forecable, bridge and poop deck open rail fitted: —

on well deck forward and aft:

Particulars of Gangways, Lifelines, etc. :—

No gang ways fitted.

hipe lines are fitted on well deck forward and aft on both sides.

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 ... ..	92' 6"	47"	36" x 18"	4	192' 18"	184.5
Forward Well ... ..	112' 8"	47"	36" x 18"	5	240' 22.5"	22.5
<p>State position of each freeing port ... .. } After Well :— 4</p> <p>(F. and A. position and height above deck edge) } Forward Well :— 5</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—</p> <p>Additional area where sheer is less than standard.</p>						

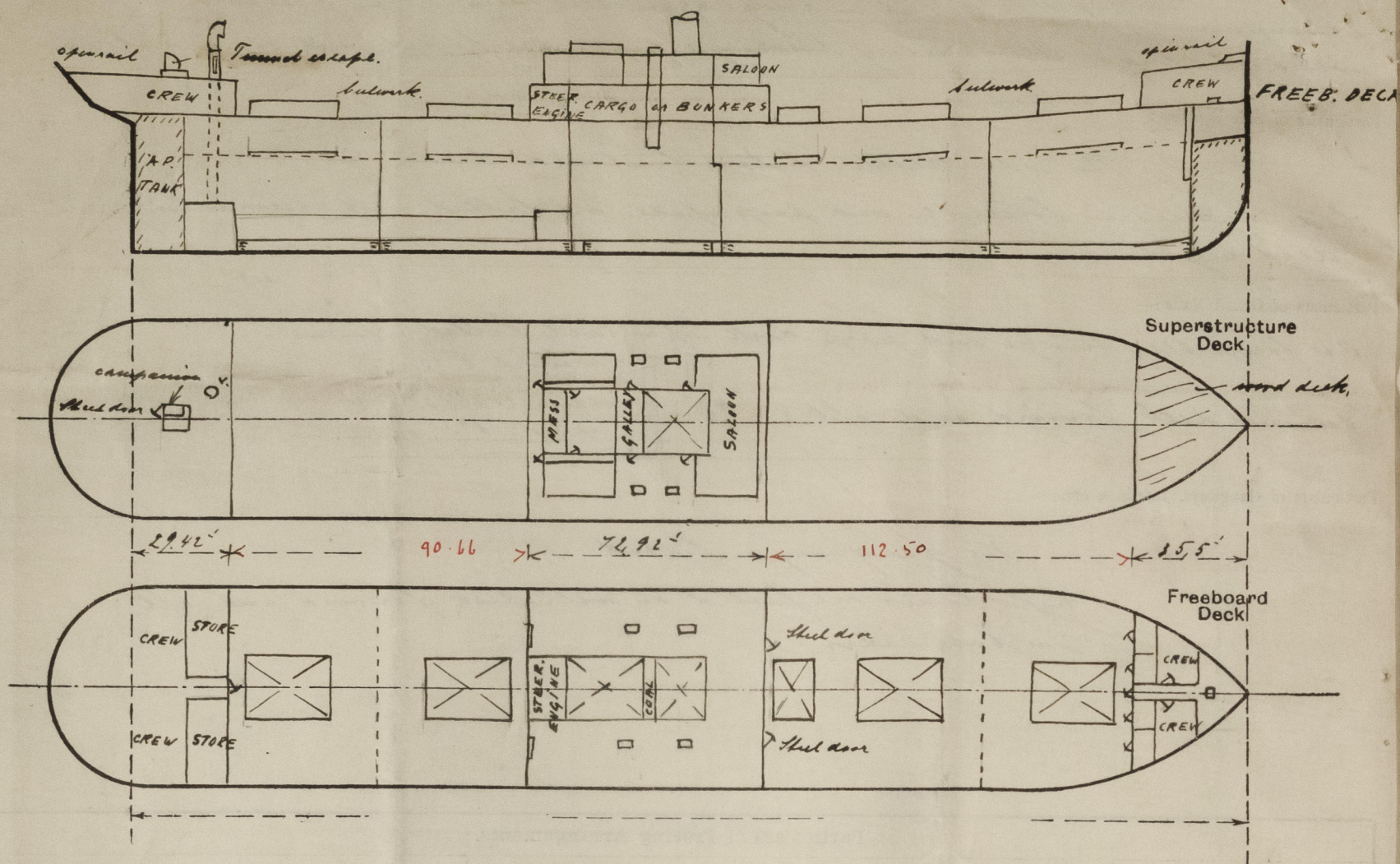
Particulars of Superstructures, Trunks, Casings, Deckhouses.									
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings	
Poop Bulkhead ... ..	.40	.32	6" x 3 1/2" x .44	30"	bracketed top & bottom	33" x 60"	18"	7'6"	
Raised Quarter Deck Bulkhead ...	✓								
Bridge, After Bulkhead ... ..	.44	.40	4 1/2" x 3" x .40	30"	✓	36" x 60"	18"	7'6"	
Bridge, Forward Bulkhead ... ..	.44	.40	9" x 3 1/2" x .50	30"	bracketed top & bottom	36" x 60"	18"	7'6"	
Forecastle Bulkhead ... ..	.40	.32	4 1/2" x 3" x .40	26"	✓	26" x 60"	18"	7'6"	
Trunk, Aft ... ..	✓								
Trunk, Forward ... ..	✓								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓								
Exposed Machinery Casings on Super-structure Decks ... ..	.40	.32	3 1/2" x 3" x .32	26"	✓	23" x 60"	18"	8'2"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.40	.32	3 1/2" x 3" x .32	26"	✓	✓	✓	7'6"	
Deckhouses on Flush Deck Ships ...	✓								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ... ..	One hinged steel door, capable of being manipulated from both sides.
Raised Quarter Deck Bulkhead ...	Two louver openings closed by storm boards, full height in channels and closed from outside by a bolted steel plate.
Bridge, After Bulkhead ... ..	Two hinged steel doors, capable of being manipulated from both sides.
Bridge, Forward Bulkhead ... ..	Five steel hinged doors, fastened with lock and key only.
Forecastle Bulkhead ... ..	Two steel hinged doors, fastened with lock and key only.
Exposed Machinery Casings on Free-board 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 shewn on the following sketches:—



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

*The vessel has been surveyed afloat and in dry dock for port Special Survey 2<sup>nd</sup> No. 1 and for load line.*

*Tons per inch immersion at 21" = 34,10 tons  
at 22" = 34,25 "*

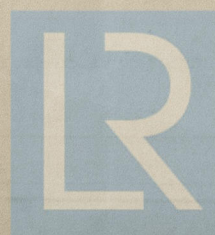
Builder's name and yard number *Union Iron Works Co. Alameda, Cal.*

Names of sister ships

Owners *E. B. Raby.*

Fee £ *11* : *18* : *0*

Received by me



© 2020

Lloyd's Register  
Foundation