

(Danzig 1)

## Lloyds Register of Shipping

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having forecastle, forward bridge and after bridgePort of Survey HamburgDate of Survey 17<sup>th</sup> of MarchName of Surveyor W. H. SeniorParticulars of Classification +100 A1  
carrying petroleum in bulk  
Longitudinal framing (contemplated)Ship's Name J. H. Senior Nationality and Port of Registry Danzig Official Number 12185 Gross Tonnage 12185 Date of Build 1931/3Moulded Dimensions: Length 520.8 Breadth 70' Depth 38-9  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 27386 tons  
Coefficient of fineness for use with Tables 798

## Depth for Freeboard (D)

Moulded depth ... .. 38.75Stringer plate ... .. 1.08

Sheathing on exposed deck

$$T \left( \frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = 38.83

## Depth correction

(a) Where D is greater than Table depth  
(D - Table depth) R =  
 $(38.83 - 34.72) \times 3 = +12.33$ (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) 70'Standard Round of Beam =  $\frac{B \times 12}{50} = 16.80$ Ship's Round of Beam = 17.00Difference .20

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left( 1 - \frac{S}{L} \right) = \frac{.20}{4} \times 738 = -.04$$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Forward bridge					
Enclosed	<u>40.08</u>	<u>40.08</u>	<u>7.50</u>	<u>✓</u>	<u>40.08</u>
Overhang					
R.Q.D. enclosed					
Overhang					
Bridge enclosed	<u>54.84</u>	<u>54.84</u>	<u>7.50</u>	<u>✓</u>	<u>54.84</u>
Overhang aft	<u>43.00</u>				
Overhang forward					
File enclosed open	<u>41.50</u>	<u>41.50</u>	<u>7.50</u>	<u>✓</u>	<u>41.50</u>
Overhang					
Overhang aft					
Overhang forward					
Overhang opening aft					
Overhang forward					
Total	<u>136.42</u>	<u>136.42</u>			<u>136.42</u>

Standard Height of superstructure 7.5'R.Q.D. 42.0'

Deduction for complete superstructure

$$\text{Percentage covered } \frac{S}{L} = 26.192$$

$$\frac{S_1}{L} = 26.192$$

$$\frac{E}{L} = 26.192$$

Percentage from Table, Line A. Tanker 18.332

(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 =  $42 \times 18.33 = -7.70$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<u>62.08</u>	1		<u>62.08</u>	<u>88.75</u>	<u>88.75</u>	1		<u>88.75</u>
L from A.P. ...	<u>27.62</u>	4		<u>110.48</u>	<u>35.55</u>	<u>35.55</u>	4		<u>142.20</u>
1/2 L " " ...	<u>6.83</u>	2		<u>13.66</u>	<u>8.85</u>	<u>8.85</u>	2		<u>17.70</u>
Amidships ...		4					4		
1/2 L from F.P. ...	<u>13.66</u>	2		<u>27.32</u>	<u>14.80</u>	<u>14.80</u>	2		<u>29.60</u>
1/2 L " " ...	<u>55.24</u>	4		<u>220.96</u>	<u>59.15</u>	<u>59.15</u>	4		<u>236.60</u>
F.P. ...	<u>124.16</u>	1		<u>124.16</u>	<u>136.50</u>	<u>136.50</u>	1		<u>136.50</u>
Total				<u>558.66</u>					<u>651.35</u>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( \frac{75 - S}{2L} \right) = \frac{92.69}{18} \left( \frac{75 - 131}{2L} \right) = -3.19$$

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 = 38.83Summer freeboard = 8.47Moulded draught (d) = 30.36

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 7.59Addition for Winter North Atlantic Freeboard (if required) = 5.21

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 25160$ 

Tons per inch immersion at summer load water line

 $T = 77.2$ Deduction =  $\frac{\Delta}{40T}$  inches8.15

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

Correction for coefficient

$$\times \frac{1.478}{1.36}$$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

	+	-
Depth Correction	<u>12.33</u>	
Deduction for superstructures		<u>7.70</u>
Sheer correction		<u>3.19</u>
Round of Beam correction		<u>.04</u>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	<u>12.33</u>	<u>10.93</u>

Summer Freeboard = 101.68SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel, Deck :— 2.58 mtr. 8'-5 3/4"Tropical Fresh Water Line above Centre of Disc 16"Fresh Water Line " " " " 21 mtr. 8 1/4"Tropical Line " " " " 19 mtr. 7 3/4"Winter Line below " " " " 19 mtr. 7 1/2"Winter North Atlantic Line " " " " 32 mtr. 12 3/4"Tropical Fresh Water Freeboard 218"Fresh Water Freeboard 237"Tropical 239"Winter 277"Winter North Atlantic 290"



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS							
Description of Hatchway	Cargo hatchways	O.T. cargo hatchways	O.T. cargo hatchways	O.T. cargo hatchways	O.T. cargo hatchways	O.T. cargo hatchways	O.T. cargo hatchways
Dimensions of Hatchway	one off 9' x 10'	14 off 6' x 4'	6 off 5' x 4'	20 off 2' x 2'	2' x 2' diam.	2' x 2' diam.	2' x 2' diam.
COAMINGS	Height above Deck ... 2-8	Height above Deck ... 2-8	Height above Deck ... 2-8	Height above Deck ... 2-8	Height above Deck ... 2-8	Height above Deck ... 2-8	Height above Deck ... 2-8
	Thickness ... 10/20	Thickness ... 10/20	Thickness ... 10/20	Thickness ... 10/20	Thickness ... 10/20	Thickness ... 10/20	Thickness ... 10/20
	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105	Stiffeners ... 180-75-105
	Brackets, Stays ...	Brackets, Stays ...	Brackets, Stays ...	Brackets, Stays ...	Brackets, Stays ...	Brackets, Stays ...	Brackets, Stays ...
HATCH BEAMS	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...
	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...
	Scantling and Sketch ...	Scantling and Sketch ...	Scantling and Sketch ...	Scantling and Sketch ...	Scantling and Sketch ...	Scantling and Sketch ...	Scantling and Sketch ...
	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...
FORE AND AFTERS	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...
	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...	Spacing ...
	Unsupported Lengths ...	Unsupported Lengths ...	Unsupported Lengths ...	Unsupported Lengths ...	Unsupported Lengths ...	Unsupported Lengths ...	Unsupported Lengths ...
	Scantling* and Sketch ...	Scantling* and Sketch ...	Scantling* and Sketch ...	Scantling* and Sketch ...	Scantling* and Sketch ...	Scantling* and Sketch ...	Scantling* and Sketch ...
	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...
HATCH COVERS	Material ...	Material ...	Material ...	Material ...	Material ...	Material ...	Material ...
	Thickness ...	Thickness ...	Thickness ...	Thickness ...	Thickness ...	Thickness ...	Thickness ...
	How Fitted ...	How Fitted ...	How Fitted ...	How Fitted ...	How Fitted ...	How Fitted ...	How Fitted ...
	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...	Bearing Surface ...
Spacing of Cleats	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...

Particulars of fiddle, funnel and ventilator coamings: *Fiddle with lined covers and turnbuckles.*  
*deck of donkey boiler room*  
*above after-bridge deck 5'3"*  
*below thickness of coaming 10/20*  
*ventilator to donkey boiler room*  
*1 off 32" diam 2/20 thickness 8'6" above deck*  
*2 off 28" 2/20 8'6"*

Particulars of Flush Bunker Scuttles:—  
*None*

Particulars of Companionways: *4 Companionways in casing above after-bridge deck*  
*2 off 8'1" 8'1" 2' x 2' with steel doors with turnbuckles.*  
*2 off 8'1" 8'1" 2' x 2' with steel doors with turnbuckles.*  
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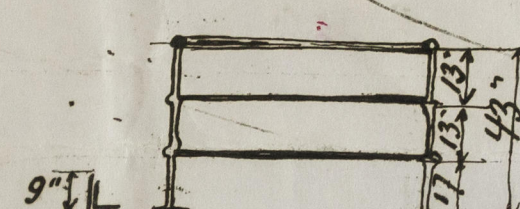
Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
*2 ventilators on freeboard deck 2' diam. height above deck 29'0"*  
*thickness of coaming 10/20*  
*2 off 28" 2/20 8'6"*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
*Hand-pump type pressure and Vacuum Relief Valves fitted on top of O.T. hatch covers, no pipes fitted on deck.*

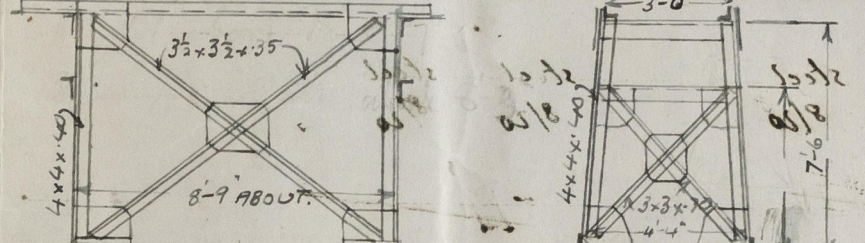
Particulars of Gangways, Lifelines, etc.:—  
*None*

Particulars of Scuppers and Sanitary Discharge pipes:— *8 scuppers each side above freeboard deck*  
*Scuppers below freeboard deck*  
*forward: 2 off 2" diam. with storm valves.*  
*aft: 2 off 5" diam. without storm valves.*

Particulars of Side Scuttles:—  
*None below freeboard deck*

Particulars of Guard Rails:—  


Particulars of Gangways, Lifelines, etc.:—  
*Gangway extends between fore and aft.*  
*The crew are not berthed in the fore-castle.*

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	...	...	...	...	...	...

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.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
after bridge forward	11 1/4	10	2.250 x 90 x 11	675	2 angled	2 hinged w.t. doors 5'3" x 1'3"	18"	7' 6"
after bridge after	"	"	2.160 x	690 to 760	2 angled	2 hinged w.t. doors 5'3" x 1'3"	18"	7' 6"
Raised Quarter Deck Bulkhead forward	10	9	2.165 x 75 x 10	262	10 7/8 brackets	1 hinged w.t. door 2 opening 4'2.3"	18"	7' 6"
Bridge, After Bulkhead forward	11	10	2.200 x 75 x 11	262	11 5/8	2 hinged w.t. doors 5'3" x 1'8 1/2"	18"	7' 6"
Bridge, Forward Bulkhead		8	2.100 x 75 x 8	760	-			
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	12.25	10.25	2.240 x 90 x 12.5	608	10 7/8	none		
Exposed Machinery Casings on Superstructure Decks	"	10.25	2.240 x 90 x 12.5	608		none		
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)
after bridge forward
after bridge after
Raised Quarter Deck Bulkhead forward
Bridge, After Bulkhead forward
Bridge, Forward Bulkhead
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

2 hinged w.t. doors of 10 7/8" thickness and 6 turnbuckles each.

2 hinged w.t. doors of 10 7/8" thickness and 8 turnbuckles each

1 hinged w.t. door of 10 7/8" and 6 turnbuckles

1 hinged w.t. door of 10 7/8" and 6 turnbuckles

2 openings closed with 10 7/8" plates and 3/4" hookbolts in 310 7/8" spacing.

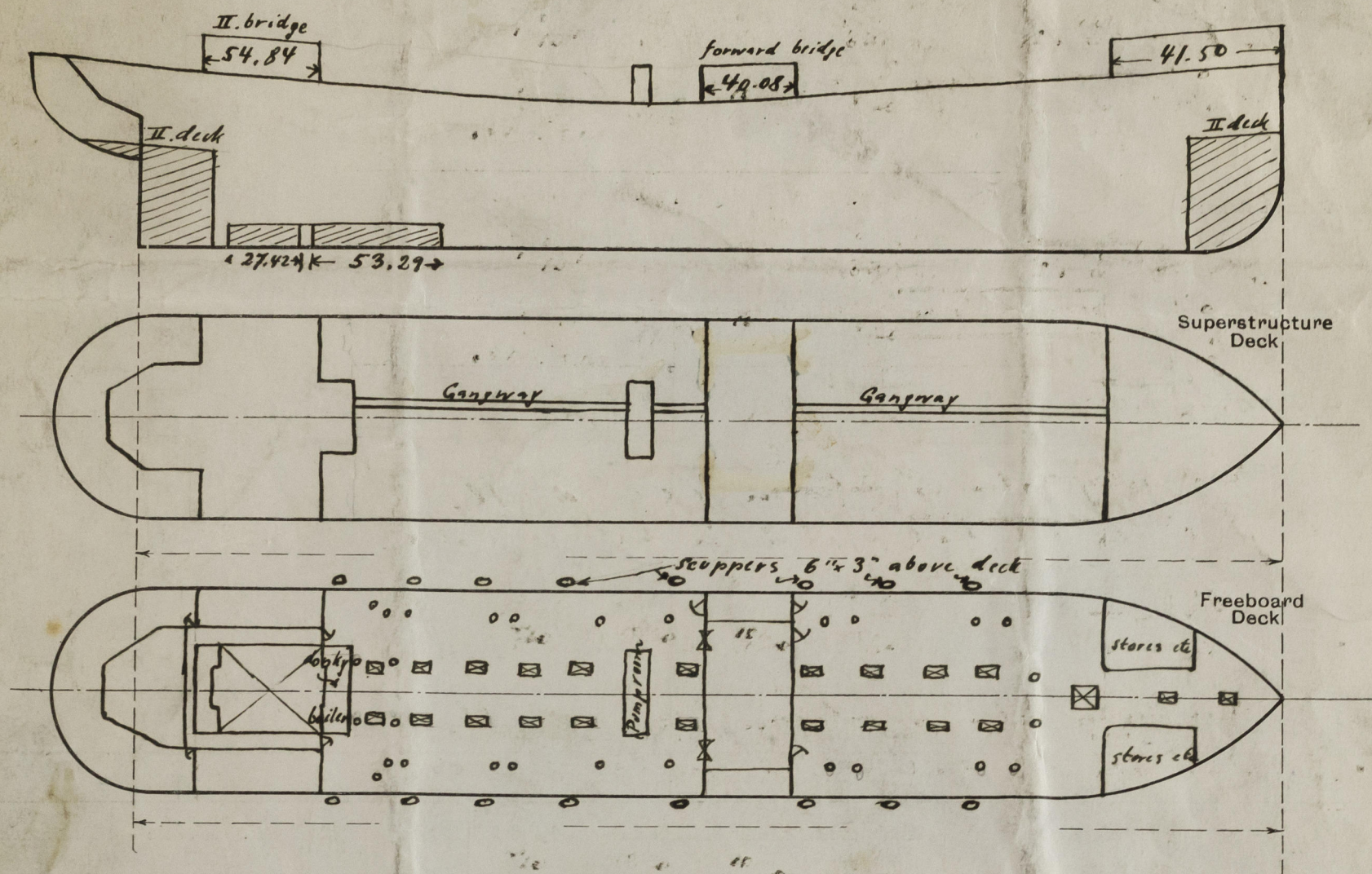
spray water tight doors in deck houses, open for Forecastle.

10 7/8" 7 1/8" 5 1/4" 8 1/4"

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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:—



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

Builder's name and yard number.....

*Nordseewerke Emden N: 173*

Names of sister ships .....

*Heinrich von Riedemann*

Owners.....

*Standard Shipping Company*

Hamburg Report Nr.

*21935*



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Foundation