

11 SEP 1936

35038

Index. No.  
(For London Office only.)

Rpt. C.11.

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Marina 34681  
Shorshemen 34778  
NORNESS 35967

Computation of Freeboard for Motor Steam, Sailing Ship, Tanker  
having Prop and Forecastle  
(Type of Superstructures.)  
Port of Survey Hamburg  
Date of Survey 8th Sept. 1936  
Name of Surveyor H. Young  
Particulars of Classification +100 A1  
Carrying Petroleum in Bulk

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>" NORLYS "</u> <u>N. N. LOYOLA</u>	<u>Panama</u> <u>Panama City</u>	<u>✓</u>	<u>9892</u> <u>35.92</u>	<u>1936</u>

Moulded Dimensions: Length 147.61m Breadth 20.04m Depth 10.95m  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21630 clm  
Coefficient of fineness for use with Tables 0.7856 = 21822 tons

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>10.95m</u>	(a) Where D is greater than Table depth <u>3.71</u> (D-Table depth) R = <u>(36.00 - 32.29)3</u> <u>= + 11.13"</u>	Moulded Breadth (B) ... <u>20.04m</u>
Stringer plate ... <u>2.1m</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50}$ = <u>15.78</u>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>15.75</u>
Depth for Freeboard (D) = <u>36.00</u>		Difference = <u>.03</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S}{L} \right)$ = <u>.03/4 x 6236 = Nil</u>

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>113.52</u>	<u>113.52</u>	<u>2440</u>	<u>8.0"</u>	<u>113.52</u>
" overhang ...	<u>none</u>				
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward	<u>68.77</u>	<u>68.77</u>	<u>7.6"</u>		<u>68.77</u>
F'cle enclosed ...	<u>20.96m</u>		<u>2290</u>		
" overhang ...	<u>none</u>				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	<u>182.29</u>	<u>182.29</u>			<u>182.29</u>

Standard Height of Superstructure 7.6"  
" " R.Q.D. ✓  
Deduction for complete superstructure 42.00"  
Percentage covered  $\frac{S}{L} = 37.64\%$   
"  $\frac{S_1}{L} = 37.64\%$   
"  $\frac{E}{L} = 37.64\%$   
Percentage from Table, Line A. TANKER  
(corrected for absence of forecastle (if required)) 28.64%  
Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) ✓  
Interpolation for bridge less than 2L (if required) ✓  
Deduction = 42.00 x .2864 = 12.03"

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft =	Mean standard sheer aft =
A.P. ...	58.43	1		58.43	<del>44.24</del> 42.91 <del>1090</del>	42.91	1		42.91		Deficient
1/4 L from A.P. ...	26.00	4		104.00	<del>18.90</del> 480	18.90	4		75.60	Mean actual sheer forward =	Deficient
1/2 L " ...	6.43	2		12.86	<del>5.31</del> 125	5.31	2		10.62	Mean standard sheer forward =	
Amidships ...	-	4		-	0	-	4		-	Length of enclosed superstructure forward of amidships =	
3/4 L from F.P. ...	12.86	2		25.72	<del>10.43</del> 285	10.43	2		20.86	" " aft of " =	} Deficient Sheer
1/4 L " ...	52.00	4		208.00	<del>35.43</del> 400	35.43	4		141.72		
F.P. ...	116.86	1		116.86	<del>85.43</del> 2170	85.43	1		85.43		
Total ...				525.87					377.14		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{148.73}{18} \left( 75 - \frac{1882}{5618} \right) = + 4.64"$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{786+.68}{1.36} = \frac{1.466}{1.36}$
Depth to Freeboard Deck = <u>36.00</u>	$\Delta = 20035$	Depth Correction ... <u>11.13</u>
Summer freeboard = <u>7.83</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>12.03</u>
Moulded draught (d) = <u>28.17</u>	T = <u>65.50</u>	Sheer correction ... <u>4.64</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>7.04 = 7"</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>7.65 = 7 3/4"</u>	Round of Beam correction ... <u>-</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>7 + 4 3/4 = 11 3/4"</u>		Correction for Thickness of Deck amidships ... <u>-</u>
		Other corrections, scantlings, etc. ... <u>-</u>
		Summer Freeboard = <u>93.99</u>

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

Tropical Fresh Water Line above Centre of Disc	<u>3.75</u> ... <u>14 3/4"</u>	Tropical Fresh Water Freeboard ...	<u>6' 7 1/4"</u>
Fresh Water Line	<u>1.97</u> ... <u>7 3/4"</u>	Fresh Water	<u>7' 2 1/4"</u>
Tropical Line	<u>1.78</u> ... <u>7"</u>	Tropical	<u>7' 5"</u>
Winter Line below	<u>1.78</u> ... <u>7"</u>	Winter	<u>8' 5"</u>
Winter North Atlantic Line	<u>2.58</u> ... <u>11 3/4"</u>	Winter North Atlantic	<u>8' 9 3/4"</u>

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
FREEBOARD DECK →									

Particulars of fiddle, funnel and ventilator coamings:-

Fiddle top 2600mm above the poop deck.  
 Openings in fiddle top closed by steel hinged covers.  
 Funnel and ventilator coamings efficiently fastened to fiddle top.

Particulars of Flush Bunker Scuttles:-

Particulars of Companionways:-

Two companionways on poop deck for accommodations, closed by steel hinged doors, capable of being manipulated from both sides.  
 Height of sill

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

On forecastle deck two ventilators for fore cargo hold 15" diam, covering 36" high, 36" thick.  
 On forecastle deck two ventilators for fore cargo hold 12" diam, covering 36" high, 32" thick.  
 The ventilators are capable of being closed by steel screwed covers.

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

Air pipe for fore peak tank 650<sup>7</sup>/<sub>16</sub> above forecastle deck.  
 Air pipe for after peak tank 650<sup>7</sup>/<sub>16</sub> above poop deck.  
 All air pipes of substantial construction and fitted with wooden plugs and canvas covers.

Particulars of Gangway Cargo and Coaling Ports:-

none.

Particulars of Scuppers and Sanitary Discharge Pipes:-

7 scuppers on each side above freeboard deck 100x90 mm.  
 All sanitary discharge pipes are fitted with storm valves.

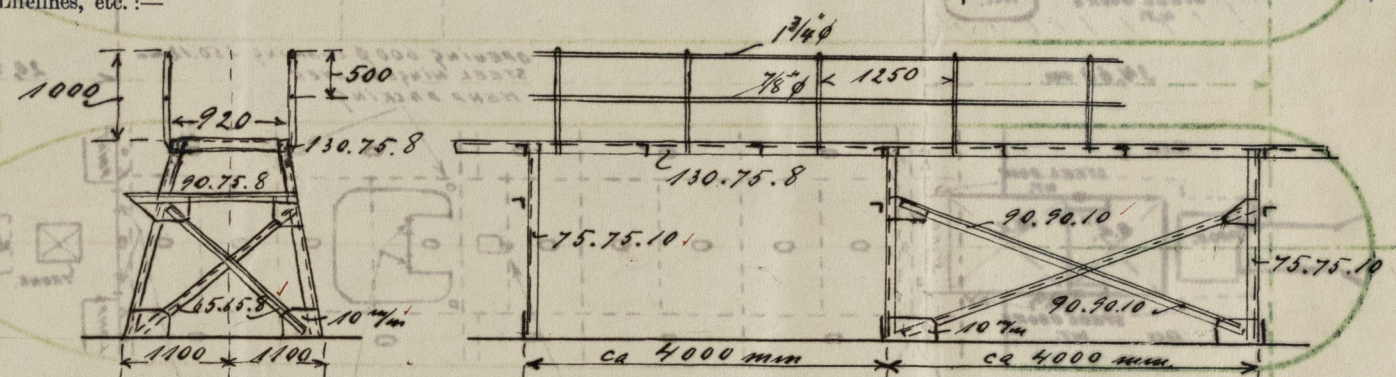
Particulars of Side Scuttles:-

No side scuttles fitted below freeboard deck.  
 Side scuttles in forecastle and poop space are of substantial construction and fitted with dead lights.

Particulars of Guard Rails:-

On forecastle deck open rail fitted.  
 On poop deck open rail fitted.  
 On poop deck open rail fitted. 1070

Particulars of Gangways, Lifelines, etc.:-



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			Open rail fitted.			
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) After Well:-  
 Forward Well:-  
 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	12 <sup>7</sup> / <sub>16</sub>	M12	250.90.145	645-730	brackets top & bottom	950x1250	460	2440 <sup>7</sup> / <sub>16</sub>
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	12 <sup>7</sup> / <sub>16</sub>	7.5	100.75.75	700	none	2x 600x1550	400	2290 <sup>7</sup> / <sub>16</sub>
Trunk, Aft						2x 950x1250	600	
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	9 <sup>7</sup> / <sub>16</sub>	7.5	115.65.75	760	none	700.1540	460	2440 <sup>7</sup> / <sub>16</sub>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	9 <sup>7</sup> / <sub>16</sub>	6.5	115.75.75	760	none	700.1540	460	2440 <sup>7</sup> / <sub>16</sub>
Deckhouses on Flush Deck Ships								

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

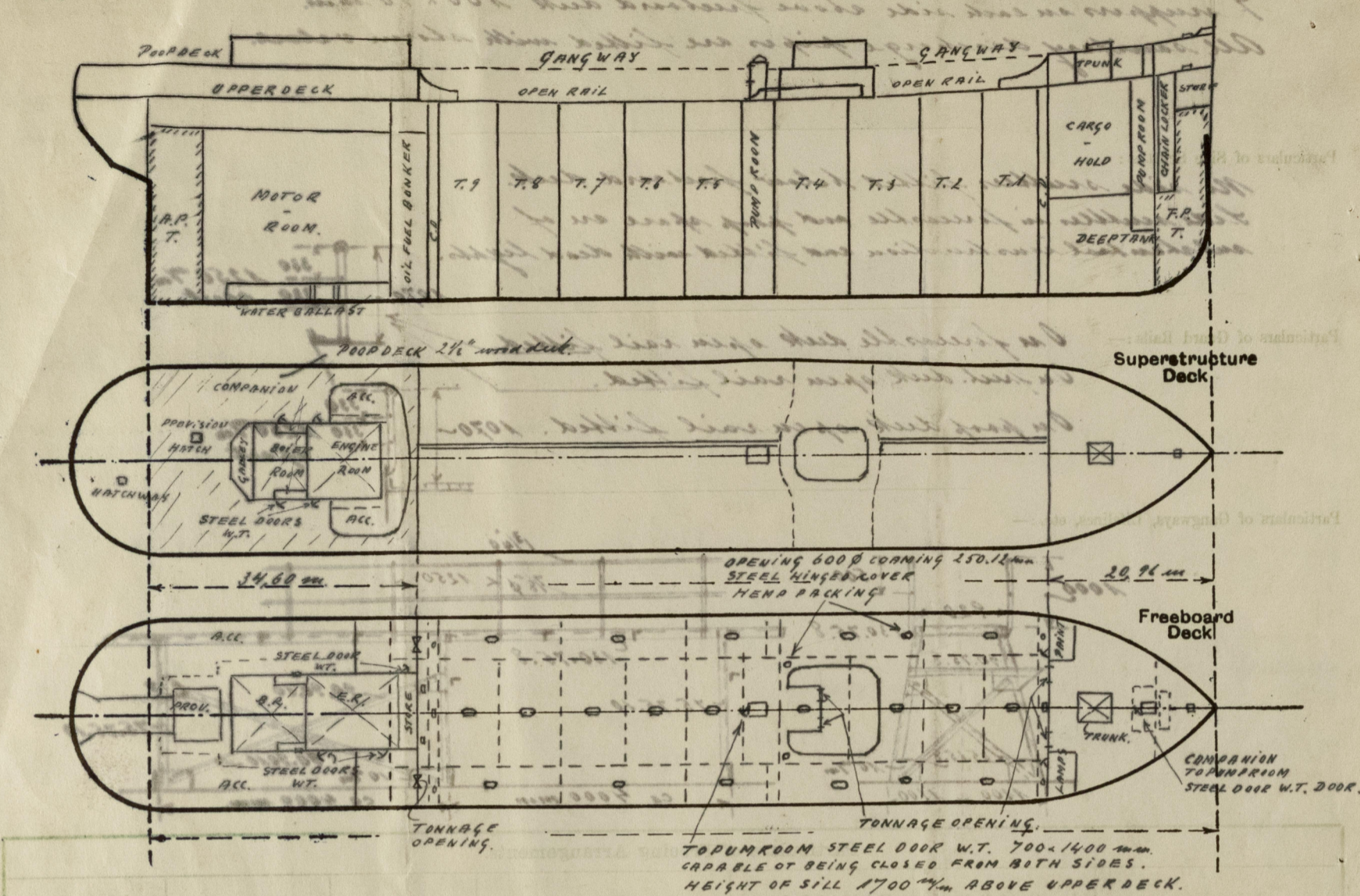
Poop Bulkhead	Two hinged openings, closed by portable plates with 7/8" bark bolts, 300 <sup>7</sup> / <sub>16</sub> apart.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Two hinged openings, closed by storm boards full height in shrouds etc.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Two hinged steel doors, closed with lock and key only
Exposed Machinery Casings on Superstructure Decks	Two hinged steel doors, capable of being closed from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Two hinged steel doors, capable of being closed from both sides.
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 shewn on the following sketches:—



State any special features in the construction of the ship:— *Tanker with two long't. bulkheads.*

*This vessel has been surveyed during construction in stocks and afloat.*

*Displacement in salt water at 27' draught - 18948 tons.*

*" " " " 28' " - 19736 "*

*" " " " 29' " - 20522 "*

Height of Casings	Height of Sills	Size of Openings	End Attachments of Sillings	Spacing	Stiffeners	Fastening	Remarks
12.40	4.00	1.00 x 1.00	...	...	...	...	Poop Bulkhead
12.40	4.00	1.00 x 1.00	...	...	...	...	Raised Quarter Deck Bulkhead
12.40	4.00	1.00 x 1.00	...	...	...	...	Bridge After Bulkhead
12.40	4.00	1.00 x 1.00	...	...	...	...	Bridge Forward Bulkhead
12.40	4.00	1.00 x 1.00	...	...	...	...	Forecastle Bulkhead
12.40	4.00	1.00 x 1.00	...	...	...	...	Trunk Aft
12.40	4.00	1.00 x 1.00	...	...	...	...	Trunk Forward
12.40	4.00	1.00 x 1.00	...	...	...	...	Exposed Machinery Casings on Freeboard or Raised Quarter Deck
12.40	4.00	1.00 x 1.00	...	...	...	...	Exposed Machinery Casings on Superstructure Decks
12.40	4.00	1.00 x 1.00	...	...	...	...	Machinery Casings within Superstructure Decks
12.40	4.00	1.00 x 1.00	...	...	...	...	Machinery Casings within Superstructure Decks not fitted with Class C Appliances (state if capable of being manipulated from both sides)

Builder's name and yard number *Deutsche Werft A.G. Hamburg Yard No. 187.*

Names of sister ships *"Marina" Yard No. 141, "Hanshin" Yard No. 163.*

Owners *Johann Rasmussen & Co. Sandefjord.*

Fee *RM 400.-* Received by me *will be charged with First Entry*