

5110

4 JUL 1932

Rpt. C.11.

Index. No. 31988  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~  
having Poop, trunk & fore-castle.

(Type of Superstructures.)

Ship's Name <b>ALETTA</b>	Nationality and Port of Registry <b>Dutch 1<sup>st</sup> G.avenhage.</b>	Official Number <b>3085</b>	Gross Tonnage <b>1927-5</b>	Date of Build <b>1927-5</b>
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Moulded Dimensions: Length 304.375 Breadth 50' Depth 19' 3"  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 5590 tons  
Coefficient of fineness for use with Tables .785

Port of Survey Singapore  
Date of Survey 30<sup>th</sup> May 32  
Name of Surveyor John T. Lindlay  
Particulars of Classification +100A1  
Carry petrol in bulk.  
S.S. Sing. No. 1-31

<b>Depth for Freeboard (D)</b> Moulded depth ... <u>19.25</u> ... <u>19.25</u> Stringer plate ... <u>.46</u> ... <u>.04</u> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ <u>✓</u> Depth for Freeboard (D) = <u>19.29</u>	<b>Depth correction</b> (a) Where D is greater than Table depth (D-Table depth) R =  (b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>(20.31-19.29) 2.343 = 2.39</u> If restricted by superstructures $\times \frac{5.50}{6.546} = -2.01$	<b>Round of Beam correction</b> Moulded Breadth (B) <u>50'</u> Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>12</u> Ship's Round of Beam = <u>12</u> Difference Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <u>NIL</u>
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### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>86.375</u>	<u>86.37</u>	<u>5' 6"</u>		<u>86.37</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...	<u>47.04</u>				
F'cle enclosed ...	<u>47.59</u>	<u>47.04</u>	<u>7' 6"</u>		<u>47.04</u>
" overhang ...					
Trunk aft ... } <u>168.4</u>		<u>112.82</u>	<u>5' 6"</u>	<u>5.50/6.546</u>	<u>94.82</u>
" forward ... }					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>133.41</u>	<u>246.23</u>			<u>228.23</u>

Standard Height of Superstructure 6.546  
" " R.Q.D. ...  
Deduction for complete superstructure 35.64  
Percentage covered  $\frac{S}{L} =$  43.79  
" "  $\frac{S_1}{L} =$  80.82  
" "  $\frac{E}{L} =$  74.91  
Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B. Tanker 69.04  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than 2L (if required)  
Deduction = 35.64 x 69.04 = -24.60

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual shear aft =	Mean standard shear aft =
A.P. ...	<u>40.46</u>	1		<u>40.46</u>	<u>32.125</u>	<u>36.00</u>	1		<u>36.00</u>	<u>Deficient</u>	
$\frac{1}{6}$ L from A.P. ...	<u>18.00</u>	4		<u>72.00</u>	<u>11.5</u>	<u>13.43</u>	4		<u>53.72</u>	<u>Deficient</u>	
$\frac{2}{6}$ L " ...	<u>4.45</u>	2		<u>8.90</u>	<u>2.375</u>	<u>3.36</u>	2		<u>6.72</u>		
Amidships ...		4		<u>0</u>			4				
$\frac{2}{6}$ L from F.P. ...	<u>8.90</u>	2		<u>17.80</u>	<u>5.375</u>	<u>6.42</u>	2		<u>12.84</u>		
$\frac{1}{6}$ L " ...	<u>36.01</u>	4		<u>144.04</u>	<u>25.375</u>	<u>25.67</u>	4		<u>102.68</u>		
F.P. ...	<u>80.92</u>	1		<u>80.92</u>	<u>58.875</u>	<u>60.00</u>	1		<u>60.00</u>		
Total ...				<u>364.12</u>					<u>271.96</u>		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{92.16}{18} (.75 - .2189) = +2.72$   
If limited on account of midship superstructure. If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <u>19.29</u> Ft. Summer freeboard = <u>1.78</u> Moulded draught (d) = <u>17.51</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.38</u> = <u>11 cms.</u> Addition for Winter North Atlantic Freeboard (if required) = <u>3.05</u> = <u>8 cms.</u>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ <u>5931</u> <u>6080</u> Tons per inch immersion at summer load water line $T =$ <u>31.55</u> Tons. Deduction = $\frac{\Delta}{40 T}$ inches = <u>4.77</u> = <u>12 cms.</u>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{785 + .68}{1.36} =$ <u>1.465</u> Depth Correction ... <u>2.01</u> Deduction for superstructures ... <u>24.60</u> Sheer correction ... <u>2.72</u> Round of Beam correction ... Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = <u>21.38</u>	<u>42.02</u> <u>45.27</u> <u>21.38</u> <u>54 cms.</u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck: — 21.38 = 54 cms.

Tropical Fresh Water Line above Centre of Disc ...	<u>23</u> cms	Tropical Fresh Water Freeboard ...	<u>31</u> "
Fresh Water Line " " ...	<u>12</u> "	Fresh Water " " ...	<u>42</u> "
Tropical Line " " ...	<u>11</u> "	Tropical " " ...	<u>43</u> "
Winter Line below " " ...	<u>11</u> "	Winter " " ...	<u>65</u> "
Winter North Atlantic Line " " ...	<u>19</u> "	Winter North Atlantic " " ...	<u>75</u> "

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway			Onchold.	Centre Tanks - nos. 1, 4, 5.	Centre Tanks nos. 2, 3.	Wing Tanks nos. 1, 2, 5.	Wing Tanks nos. 3, 4.			
Dimensions of Hatchway			9'0"x10'0"	7'3"x8'0"	5'10"x8'0"	6'11"x4'10"	7'0"x4'10"			
COAMINGS	{	Height above Deck	2'6"	2'6"	2'6"	1'0" above trunk	1'0" above trunk			
		Thickness	Sides	1/4"	1/4"	1/4"	1/4"	1/4"		
			Ends	1/4"	1/4"	1/4"	1/4"	1/4"		
		Stiffeners	✓	✓	✓	✓	✓			
		Brackets, Stays	✓	✓	✓	✓	✓			
HATCH BEAMS	{	Number								
		Spacing								
		Scantling and Sketch								
		Bearing Surface	✓	✓	✓	✓	✓			
FORE AND AFTERS	{	Number								
		Spacing								
		Unsupported Lengths								
		Scantling* and Sketch	✓	✓						
		Bearing Surface								
				Small Hatch to FP Stores 2'6" x 2'6" x 10' BA coaming } Steel lds						
				" " Chain locker 2'0" x 18" x 9" " " " } lds						
				" Steel Skylight to Fore Accom 3/8" plating						
				2 Small Hatches aft end trunk at 6' Bunkers 2'6" x 2'6" x 9' BA, steel lds.						
HATCH COVERS	{	Material	Steel							
		Thickness	5/16"							
		How fitted	Hinged							
		Bearing Surface	9 Tight							
Spacing of Cleats			8 ft apart							
Number of Tarpaulins			13 apart							
*Are wood fore and afters steel shod at all bearing surfaces ?										
Are battens and wedges efficient and in good condition ?										
Are tarpaulins in good condition and in accordance with rule requirements ?										
Are lashings provided in accordance with rule requirements ?										

Particulars of fiddle, funnel and ventilator coamings: — *All gratings fitted with hinged steel storm covers. (all on top of superstructure deck).*

*Ventilators = on boat deck, i.e. top of superstructure*

*19 - 8" vents - 8" coamings x 3/8" Pipe accom.*

*2 - 6" " - 6" " " x 3/8" " "*

*3 - 12" " - 6" " " x 3/8" " "*

*2 - 24" " - 6" " " x 3/8" " "*

*1 - 36" " - 6" " " x 3/8" " "*

Particulars of Flush Bunker Scuttles: — *none.*

Particulars of Companionways: — *Entrance to Crew Accommodation in Forecastle - 2 - Companionways. Steel.*

*Fore Dk → Height = 4' 3 1/2" (from fore dk), 4' 9" long x 3' 4" wide. - sill = 12". plating 1/4"*

*Teak wood door 1 1/2" thick manipulated from both sides*

*Boat Dk → on Boat deck aft. Access to accom lings. - Companionway - steel.*

*6' 0" high 8' 0" long x 3' 0" wide sill = 16". Teak wood door 1 1/2" thick, operated both sides*

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

*Forecastle head. 11 - 8" vents x 36" coamings x 3/8" thick to accom. stores, peak spaces etc*

*2 - 6" " x 36" " x 3/8" " to bathrooms*

*3 - 12" " x 36" " x 3/8" " to P Room & forehold.*

*Poop Deck aft - 4 - 8" " x 30" " x 3/8" " to aft accom.*

*1 - 14" " x 30" " x 3/8" " to aft accom.*

*Pump Rooms. 2 - 23" " x 7' 6" " x 3/8" " suitably stayed to Bridge Deck.*

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

*2. G. Necks. 6" x 4" oval x 9" high to Mess Room (forecastle space)*

*1. " 2 1/2" dia x 14" high to F.W. Tank. fwd.*

*2. " 3" dia x 11' 0" high to Bunkers (side)*

*2. " 3" " x 5' 6" " to sailing tanks.*

*2. " 3" " x 5' 6" " to oil tanks.*

*2. " 6" " x 2' 0" " to Bunkers.*

*2. " 6" " x 2' 0" " to Bunkers.*

*All G Necks fitted with wood plugs or gauge wire & canvas covers.*

Particulars of Gangway Cargo and Coaling Ports: — *none.*

## Particulars of Scuppers and Sanitary Discharge Pipes

*all scuppers and discharges below freeboard deck are fitted with non-return or storm valves.*

Particulars of Side Scuttles: *All side scuttles (in forecabin and poop spaces) are fitted with strong hinged deadlights.*

Particulars of Guard Rails: — *on Forecastle top, trunk top, harbour deck and poop aft.*

*Height = 3' 4" with two intermediate rails spaced 1 1/2' apart.*

*Stanchions approx 4' 6" apart.*

Particulars of Gangways, Lifelines, etc.: — *✓*

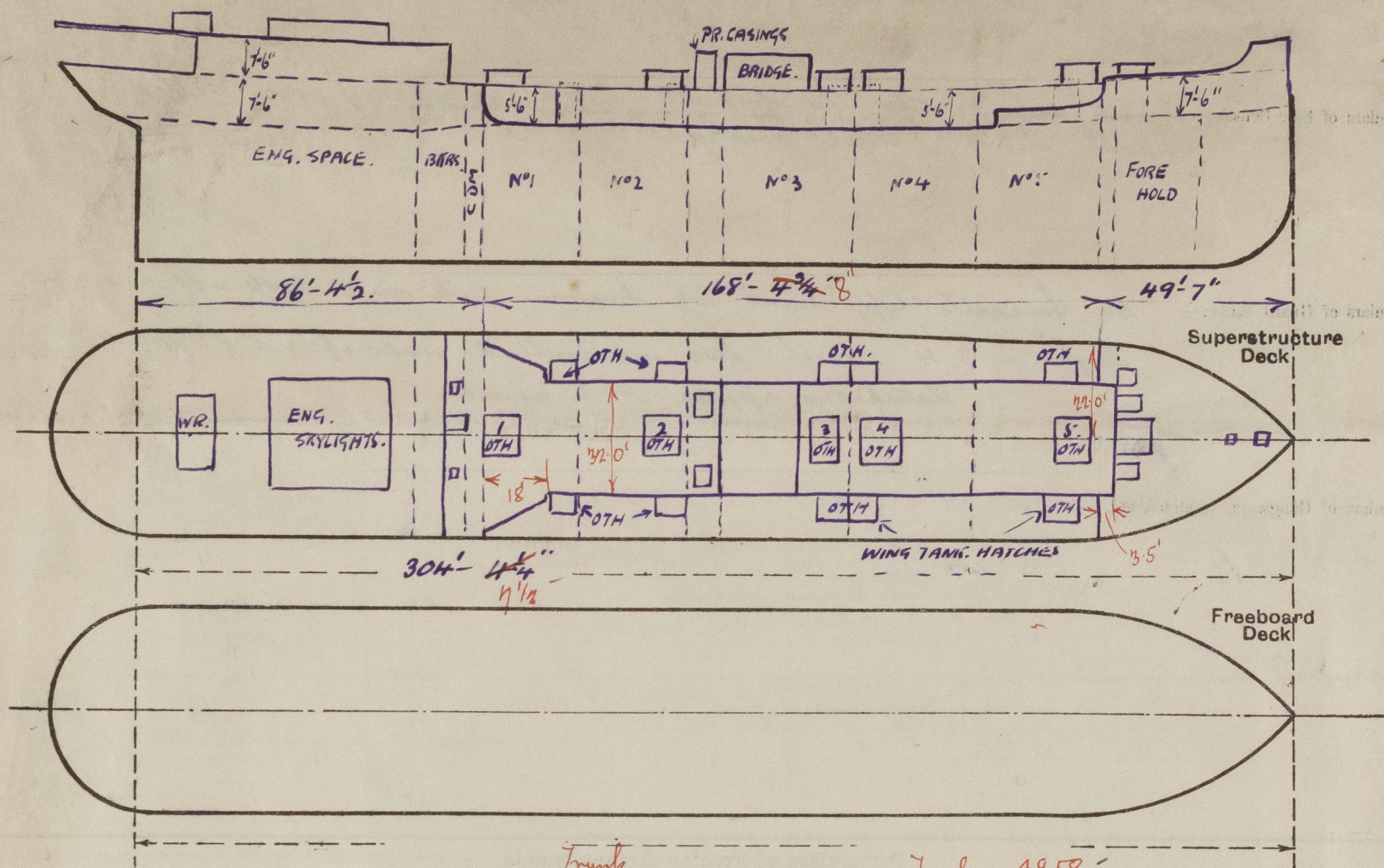
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	...	...	at fore end of Harbour deck only.	...	...	...
Forward Well	23' 1"	3' 5"	none.	...	...	...
State position of each freeing port ... After Well: — (F. and A. position and height above deck edge) } 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	3/8" ✓	3/8" ✓	5 x 3 BA .30	27"	Bkts. top & bottom.	none.	—	5' 6"
Raised Quarter Deck Bulkhead	...	...	...	...	...	...	...	...
Bridge After Bulkhead	5/16" ✓	5/16" ✓	2 1/2 x 2 1/2 x .30	36"	Bkts. top & bottom.	3' 5" x 5' 0"	16 1/2"	7' 6"
Bridge Forward Bulkhead	5/16" ✓	5/16" ✓	3 x 3 x .30	30"	"	24" x 5' 0"	18"	7' 6"
Forecastle Bulkhead	3/8" ✓	3/8" ✓	2 1/2 x 2 1/2	only on each side.	none.	1-12" port each side.	12" sill at comp. ways.	7' 6"
Trunk, Aft	1/4" ✓	1/4" ✓	5 1/2 x 3 x .30 BA	32"	Bkts. top & bottom.	none.	—	5' 6"
Trunk, Forward	1/4" ✓	1/4" ✓	...	...	...	...	...	5' 6"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Superstructure Decks	3/8" ✓	3/8" ✓	Bkts. lined.	—	—	5' 0" x 25"	18"	7' 6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	1/50" ✓	3/8" ✓	3 x 3 x .40	30"	none.	5' 0" x 24"	18"	7' 9"
Pump Room Casings on Sup. Dk.	...	...	...	...	...	...	...	...
Deckhouses on Flush Deck Ships	...	...	...	...	...	...	...	...

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	none.
Raised Quarter Deck Bulkhead	✓
Bridge After Bulkhead	channels and wood planks 2 1/2" thick.
Bridge Forward Bulkhead	Steel weather tight doors 5' 0" x 24" - operated from outside only
Forecastle Bulkhead	Companion way. Teak wood door 1 1/2" thick. operated both sides
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	Steel weather tight doors 5' 0" x 25" - operated from outside only
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel weather tight doors 5' 0" x 24" - operated from outside only
Pump Room Casings on Sup. Dk.	...
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:—

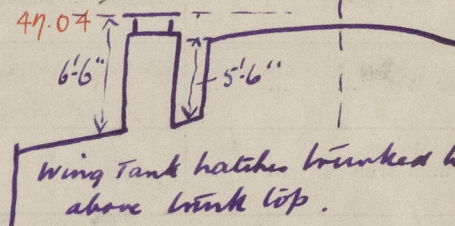


*Trunks*

$$\begin{array}{r} 168.67 \\ - 18.00 \\ \hline 150.67 \\ + 2.54 \\ \hline 153.21 \end{array} \quad \begin{array}{r} 18 \times 41 = 738 \\ 153.21 \times 32 = 4903 \\ \hline 5641 \\ \hline 500 = 11282 \end{array}$$

*Focle*

$$\begin{array}{r} 49.58 \\ - 32 \times 35 = 1120 \\ \hline 44 \\ \hline 47.04 \end{array}$$



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

The examination for Int. Load Line was held with the vessel in dry dock in conjunction with the docking examination. and the following inspected.

all deck openings, bulkhead openings & means of closing same  
 Sanppers, discharges, pentlights, decks, bulkheads, stiffening  
 Sheen, measured, fore, poop & trunk lengths & heights measured.  
 all ventilation, deck casings & air pipes examined.

The sizes given in this report are as actually measured at vessel.

$$85\% \times 19.25 = 16.37$$

$$\begin{array}{r} 16.37 \\ .14 \\ \hline 16.51 \end{array}$$

$$17'-8" BK = 6080 A$$

Builder's name and yard number Caledon S. B & E Co Ltd. Dundee.

Names of sister ships \_\_\_\_\_

Owners Ned. Indische Tankstoomboot Maats.

# 240  
 Exp. 10

Received by me \_\_\_\_\_



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