

WRECK

SECTION

H. bel. No. 122.

12 AUG 1932

Index. No. 23315  
(For London Office only.)Lloyd's Register of Shipping  
SURVEYS FOR FREEBOARD.

No. 557

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having *Poop, Bridge & Forecastle*Port of Survey *Hull*Date of Survey *Aug 5th 1932*Name of Surveyor *M. Malcolm*Particulars of Classification *+100A1**S. 86 No. 3-929*

Ship's Name *LAGARTO* Nationality and Port of Registry *British Glasgow* Official Number *137855* Gross Tonnage *5075* Date of Build *1917-9*

Moulded Dimensions: Length *384.6* Breadth *52.0* Depth *33.8 1/2*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *12213* tons

Coefficient of fineness for use with Tables *.746*

Depth for Freeboard (D) *33.71*

Moulded depth ... ..

Stringer plate ... ..

Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$  *none*

Depth for Freeboard (D) = *33.76*

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =  $(33.76 - 25.64) 2.959$   
 $8.12 \times 2.959 = +24.02$

(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) *52.00*

Standard Round of Beam =  $\frac{B \times 12}{50} = 12.48$

Ship's Round of Beam = *12*

Difference *Deficient .48*

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.48}{4} (1 - .4054) = .07$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equal</i> ...	<i>29.32</i>	<i>29.32</i>	<i>7-6</i>		<i>29.32</i>
" overhang ...	<i>1.18</i>	<i>.59</i>			<i>.59</i>
J.R.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>84.00</i>	<i>84.00</i>	<i>8-0</i>		<i>84.00</i>
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	<i>42.00</i>	<i>42.00</i>	<i>7-6</i>		<i>42.00</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>156.50</i>	<i>155.91</i>			<i>155.91</i>

Standard Height of Superstructure *7.35*

" " R.Q.D. *✓*

Deduction for complete superstructure *40.97*

Percentage covered  $\frac{S}{L} = 40.69$

" "  $\frac{S_1}{L} = 40.54$

" "  $\frac{E}{L} = 40.54$

Percentage from Table, Line A. *—*

(corrected for absence of forecastle (if required)) *—*

Percentage from Table, Line B. *27.96*

(corrected for absence of forecastle (if required)) *—*

Interpolation for bridge less than .2L (if required) *—*

Deduction =  $40.97 \times .2796 = 11.46$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>48.46</i>	1		<i>48.46</i>	<i>30.0</i>	<i>30.00</i>	1		<i>30.00</i>
1/2 L from A.P. ...	<i>21.56</i>	4		<i>86.24</i>	<i>11.6</i>	<i>9.75</i>	4		<i>39.00</i>
1/2 L " ...	<i>5.33</i>	2		<i>10.66</i>	<i>3.0</i>	<i>1.70</i>	2		<i>3.40</i>
Amidships ...		4			<i>0</i>		4		
1/2 L from F.P. ...	<i>10.66</i>	2		<i>21.32</i>	<i>8.2</i>	<i>11.10</i>	2		<i>22.20</i>
1/2 L " ...	<i>43.13</i>	4		<i>172.52</i>	<i>35.1</i>	<i>34.60</i>	4		<i>138.40</i>
F.P. ...	<i>96.92</i>	1		<i>96.92</i>	<i>75.0</i>	<i>75.00</i>	1		<i>75.00</i>
Total ...				<i>436.12</i>					<i>301.20</i>

Mean actual sheer aft = *Deficient*

Mean standard sheer aft =

Mean actual sheer forward = *Deficient*

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{134.92}{18} \left( \frac{75-2035}{2L} \right) = +4.10$

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 = *33.76*Summer freeboard = *7.23*Moulded draught (d) = *26.53*

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *6.63* = *6 3/4*Addition for Winter North Atlantic Freeboard (if required) = *—*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 

Tons per inch immersion at summer load water line

T =

Deduction =  $\frac{\Delta}{40 T}$  inchesDraft = *6 3/4*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

*66.78**70.02**28.19* *11.46* *+16.73*Summer Freeboard = *86.75*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood*, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ...

Tropical Line " " ...

Winter Line below " " ...

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

*7-2**6-1 1/2**6-8**6-8 1/2**7-9 1/2**7-9*

W 411-0197 (1/2)

# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Upper Deck									
Description of Hatchway	No 1	No 2	No 3	No 4	No 5	Escape Hatch in well	U. B. in Poop to Fore	Poop Deck	
Dimensions of Hatchway	22' x 14'	30' x 18'	19' x 16'	24' x 16'	22' x 14'	2' x 2'-6"	2'6" x 2'-3"	2'4" dia.	
COAMINGS									
Height above Deck	30"	30"	30"	30"	30"	30"	30"	17"	
Thickness	.5"	.5"	.5"	.5"	.5"	.5"	.4"	.4"	
Sides	.5"	.6"	.5"	.5"	.5"	.5"	.4"	.4"	
Stiffeners			7" B.A.						
Brackets, Stays			none						
HATCH BEAMS									
Number	4	5	3	4	4				
Spacing	even	even	even	even	even				
Scantling and Sketch	12 x .35	16 x .36	14 x .36	14 x .36	12 x .32				
Bearing Surface	3 x 3 x .42	4 x 3 x .42	3 x 3 x .42	3 x 3 x .42	3 x 3 x .42				
FORE AND AFTERS									
Number									
Spacing									
Unsupported Lengths									
Scantling and Sketch									
Bearing Surface									
HATCH COVERS									
Material			WW			WW	WW	Steel	
Thickness			3"			2 1/2"	2 1/2"	flanges	
How fitted			fra			fra	fra	hinged,	
Bearing Surface			3"			3"	3"	padlocks	
Spacing of Cleats			24"			18"	none		
Number of Tarpaulins			2			2	none		

\*Are wood fore and afters steel shod at all bearing surfaces? *yes*

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*

*The hatch web bearings should be overhauled and made good. Looking over bolts fitted to No 1 Hatchway at Riv. 5/12/42*

Particulars of fiddle, funnel and ventilator coamings:—

*Room ventilator coamings in efficient condition*

*Room skylight of steel strongly constructed*

*(Motor vessel)*

Particulars of Flush Bunker Scuttles:—

*none*

Particulars of Companionways:—

*Side Deck: 4'-6" x 2'-6" x 6'-0" high of steel efficiently constructed. 1 opening 4'-4" x 2'-0", sill 14" high closed by teak door, hinged, with spring lock manipulated from both sides.*

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

*Side deck: 9" to 18" dia. Coamings 33" x 36" high by .25 to .37 to tween deck spaces*

*Fore and after wells: 18" dia. 30" x 36" .35 to .40 thick to holds.*

*Bridge Deck: 9" to 18" dia. 11" x 12" high x .25 to .30 to accommodate*

*Gooseneck 8" x 4" 18" high to accommodate*

*Poop Deck: 9" dia. Coamings 30" high x .3 to two decks*

*Gooseneck 8" x 4" 24" to accommodate*

*ventilators constructed in accordance with Rule requirements. Wood plugs canvas covers provided for all vents excepting those of gooseneck type.*

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

*Side deck: 3" dia. 9" N. 12" high to fore peak tank*

*Afterwell: 1 1/2" dia. Height 21", to No 6 & B. tank*

*Poop Deck: 1 1/2" dia. 9" N. 18" high to B.B. tank*

*3" dia. 14" high, 9" N. to A.P. Tank*

*All air pipes to B.B. oil fuel tanks 4 1/2" dia. 24" x 30" high, fitted with atmos type valves*

*efficient means of closing provided*

Particulars of Gangway Cargo and Coaling Ports:—

*none*



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Particulars of Scuppers and Sanitary Discharge Pipes:-

Scuppers from poop space 2" dia to shell below upper deck, with storm valves.  
 bridge 2" dia.  
 side 2" dia.

Sanitary discharge pipes lead below freeboarded with storm valves at ship's side.

Particulars of Side Scuttles:-

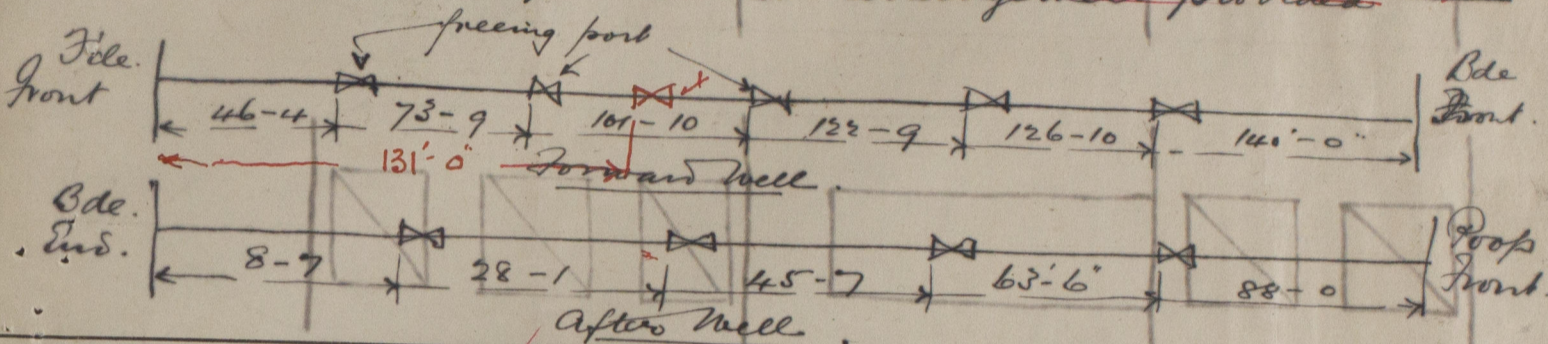
In poop & bridge, no deadlights fitted.  
 All side scuttles of substantial construction.

Particulars of Guard Rails:-

On free, bridge & poop, 3'-6" high, 3 rod, stanchions 4' to 5' apart.  
 In wells. Steel bulwarks 4'-9" high, substantially constructed and stayed.

Particulars of Gangways, Lifelines, etc.:-

Provision made for rigging lifelines for use in any part of the ship which might have to be used by the crew in the regular working of the ship.  
 no permanent arrangement provided.



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	88-0	4'-9"	3'-0" x 12' 18"	4	1200 18 6	17.60
Forward Well	140-0	4'-9"	3'-0" x 12' 19"	6	1600 18 6	28.00

State position of each freeing port

(F. and A. position and height above deck edge)

After Well: 25' above deck edge  
 Forward Well: 15' 6" 19"

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.

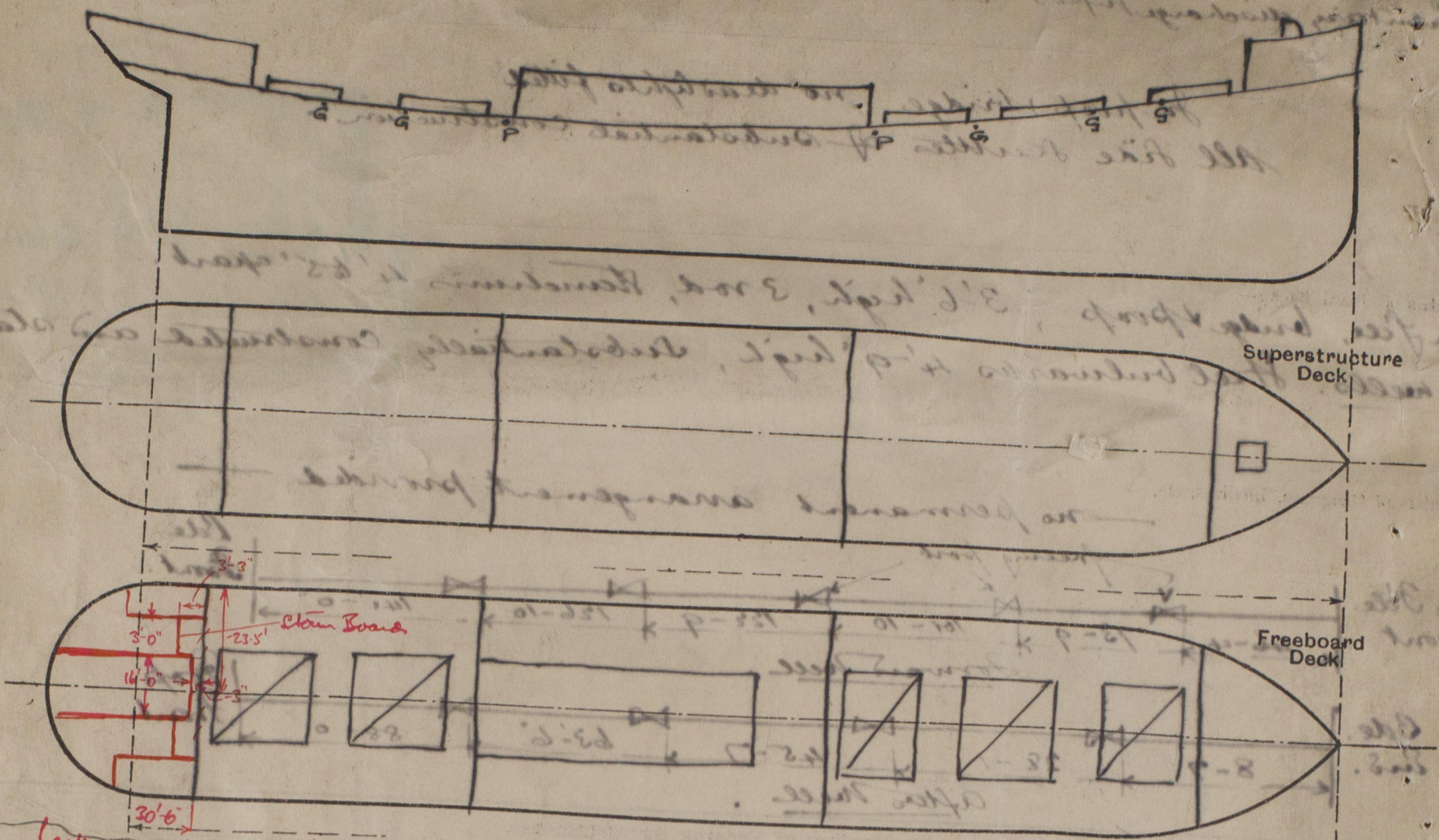
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	4'-2"	4'	6 1/2 x 3 1/2 x 4 1/2	28"	none	7'-6" x 3'-0"	nil.	7'-6"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	3'-5"	3'-2"	3 x 5 1/2 x 4	33"	none	(A) 7'-0" x 3'-6" (B) 6'-1" x 3'-3"	nil. 12"	8'-0"
Bridge, Forward Bulkhead	4'	4'	not accessible			5'-6" x 2'-9"	17"	8'-0"
Forecastle Bulkhead	3'	3'	3 1/2 x 3 x 4	30"	none	(A) 5'-0" x 2'-0" (B) 5'-6" x 4'-10"	18" nil.	7'-6"
Trunk, Aft								
Trunk, Forward								
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	4'	3'	3 1/2 x 3 x 4	27"	bkts.	5'-4" x 2'-8"	15"	8'-0"
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	Stormboards 3" thick to full height in riveted channels.
Raised Quarter Deck Bulkhead	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Bridge, After Bulkhead	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Bridge, Forward Bulkhead	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Forecastle Bulkhead	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Exposed Machinery Casings on Free-board or Raised Quarter Decks	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Exposed Machinery Casings on Superstructure Decks	(A) Stormboards 3" thick to full height in riveted channels. (B) Steel, hinged w.t. door, leads to ref. stor. in 4. Two ends, yes.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	hinged steel doors, spring lock, yes. {The spring lock should be repaired}
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 shown on the following sketches:—



$$\text{Passageway} = \frac{(3.25 \times 3.0) + (8.00 \times 2.25)}{23.5} = 1.18 \text{ cubic ft.}$$

$$\text{Loop} = 30.6 \text{ ft.}$$

$$\text{Equival.} = 29.32 \text{ ft.}$$

Poop hatch dls: trunk to U. St. from poop  
 of Steel, 2'6" x 3'6" opening 4'6" x 3'6"  
 closed by hinged steel door, with  
 Spring lock.

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

Foreboard Runway held afloat  
 no part of Special Periodical  
 Survey held at this time.

#### SHEER CORRECTION

Product	Mean actual shear	Mean standard shear
1.0	1.0	1.0
2.0	2.0	2.0
3.0	3.0	3.0
4.0	4.0	4.0
5.0	5.0	5.0
6.0	6.0	6.0
7.0	7.0	7.0
8.0	8.0	8.0
9.0	9.0	9.0
10.0	10.0	10.0

Builder's name and yard number. *Harland & Wolff Ltd.*

Names of sister ships. ☒

Owners. *Pacific Min. Nav. Co.*

Fee £ *13.12*

Received by me