

WRECK SECTION

8 MAR 1932

Index. No.

(For London Office only.)

31123

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD

No 99976.

No 557.

Computation of Freeboard for ~~Steamer~~ Sailing Ship, TankerHaving *Forecastle, Bridge House and Poop.*Port of Survey *Liverpool**LOS POZOS*

(Type of Superstructures.)

Date of Survey *March 1932*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*SAN SALVADOR**Buenos Aires, Buenos Aires, Argentina**147608.**5806**1924-3.*Name of Surveyor *Geo. P. Lytle*Moulded Dimensions: Length *407'* Breadth *52'* Depth *31'-6"*Moulded displacement at moulded draught = 85 per cent. of moulded depth *12912.* tonsCoefficient of fineness for use with Tables *.498* ✓Particulars of Classification *100 A.1.**Carrying Petroleum in Bulk.*

Depth for Freeboard (D)

Moulded depth ... *31'-6"*Stringer plate ... *78*

Sheathing on exposed deck

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

Depth for Freeboard (D) = *31'-56"*

Depth correction

(a) Where D is greater than Table depth

$$(D - \text{Table depth}) R = (31.56 - 24.13) \times 3 = +13.29$$

(b) Where D is less than Table depth (if allowed)

$$(\text{Table depth} - D) R =$$

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) *52'*

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

$$\text{Ship's Round of Beam} = 12.48 \times .75 = 9.36$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2.12}{4} \times .4942 = -.26$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>105'-6"</i>	<i>105.00</i>	<i>7'-6"</i>	✓	<i>105.00</i>
" overhang ...	<i>4"</i>				
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>37'-0"</i>	<i>34.00</i>	<i>7'-6"</i>	✓	<i>34.00</i>
" overhang aft ...	<i>3'-6"</i>	<i>2.62</i>	<i>7'-6"</i>	✓	<i>2.62</i>
" overhang forward ...					
" Enclosed ...	<i>60'-0"</i>	<i>60.00</i>	<i>7'-6"</i>	✓	<i>60.00</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>205'-50"</i>	<i>204'-62"</i>			<i>204'-62"</i>

Standard Height of Superstructure *7'-50"*

" " R.Q.D. ✓

Deduction for complete superstructure *42'-00"*

$$\text{Percentage covered } \frac{S}{L} = 50.49$$

$$\frac{S_1}{L} = 50.28$$

$$\frac{E}{L} = 50.28$$

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. *Lumber* *41.42*(corrected for absence of forecastle (if required)) *31*

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 42.00 \times .4142 = -17.40$$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>50.70</i>	1		<i>50.70</i>	<i>62</i>	<i>62.00</i>	1		<i>62.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>22.56</i>	4		<i>90.24</i>	<i>27</i>	<i>26.86</i>	4		<i>107.44</i>
$\frac{3}{4}$ L " ...	<i>5.54</i>	2		<i>11.08</i>	<i>7</i>	<i>6.71</i>	2		<i>13.42</i>
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	<i>11.15</i>	2		<i>22.30</i>	<i>13 1/4</i>	<i>13.33</i>	2		<i>26.66</i>
$\frac{1}{2}$ L " ...	<i>45.12</i>	4		<i>180.48</i>	<i>53 1/2</i>	<i>53.32</i>	4		<i>213.28</i>
F.P. ...	<i>101.40</i>	1		<i>101.40</i>	<i>120</i>	<i>120.00</i>	1		<i>120.00</i>
Total ...				<i>456.26</i>					<i>542.80</i>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{86.54}{18} \times (.75 - .2524) = -2.36$$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *31'-56"*Summer freeboard = *5'-24"*Moulded draught (d) = *26'-29"*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *6'-54" - 6'-54"*

Addition for Winter North Atlantic Freeboard (if

required = *4'-04" = 4"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 12440$$

Tons per inch immersion at summer load water line

$$T = 43.0$$

Deduction = $\frac{\Delta}{40T}$ inches

$$= \frac{12440}{40 \times 43.0} = 7.41 = 7\frac{1}{2}"$$

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient

$$.498 + .68 = 1.176$$

Depth Correction ... *13.29*Deduction for superstructures ... *14.33*Sheer correction ... *2.36*Round of Beam correction ... *.03*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = *63'-25.30"*

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

Tropical Fresh Water Line above Centre of Disc ...	<i>14"</i>	Tropical Fresh Water Freeboard ...	<i>5'-34"</i>
Fresh Water Line " " ...	<i>4 1/2"</i>	Fresh Water " " ...	<i>4'-14"</i>
Tropical Line " " ...	<i>6 1/2"</i>	Tropical " " ...	<i>4'-8 1/2"</i>
Winter Line below " " ...	<i>6 1/2"</i>	Winter " " ...	<i>5'-9 1/2"</i>
Winter North Atlantic Line " " ...	<i>10 1/2"</i>	Winter North Atlantic " " ...	<i>6'-1 1/2"</i>

18 MAY 1932

W411-0227(1/2)

MAR 1932

17 JUL 1936

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	N ^o 1	on F.C.L.				
Dimensions of Hatchway	...	...	...	12'0" x 8'10"					
COAMINGS	Height above Deck	...	...	2'10"					
	Thickness	Sides	...	9/20					
	Stiffeners	Ends	...	7/16 x 3/4 x 4 x 2					
	Brackets, Stays	...	...	on ends only					
HATCH BEAMS	Number	...	...	1					
	Spacing	...	...	4'5"					
	Scantling and Sketch	...	...	Plat. 3/16" Angle 3 x 3 1/2"					
	Bearing Surface	...	...	3 1/2"					
FORE AND AFTERS	Number	...	...	(8)					
	Spacing	...	...	1'10" x 1'10"					
	Unsupported Lengths	...	...	Coaming 36" x 3/20					
	Scantling* and Sketch	...	...	with steel W. S. Plate Coaming 4" efficiently closed with strong rivets & bolts					
HATCH COVERS	Material	...	...	W. P.					
	Thickness	...	...	2 1/2"					
	How fitted	...	...	F. & A.					
	Bearing Surface	...	...	3 1/2"					
Spacing of Cleats	...	...	...	19					
Number of Tarpaulins	...	...	...	2					
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Yes</i></p>									

Particulars of fiddle, funnel and ventilator coamings: — *Storehold + Sidley Girders are covered by strong steel hunged covers. Sidley + Funnel ventilators are in efficient condition. Engine Room skylight is of steel strongly constructed.*

Particulars of Flush Bunker Scuttles: —

Nil

Particulars of Companionways: —

Nil

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

On Fore Deck	3	Units	7" Dia	Coaming 36" x 3	to Afters.
" "	3	"	12" "	" 36" x 35	" "
" F.C.L.	13	"	7" "	" 36" x 3	" "
" "	6	"	12" "	" 36" x 35	to Fore Hold Slides.

These plugs & canvas covers are on board for all vents!

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

On Fore Deck	2	3" Dia	15" high to DWS Lark	
" "	1	3" "	15" " " Dry DWS	
" "	2	3" "	18 1/2" " " Settling Tanks	
to Cofferdams	6" Dia		air pipe on top of each cofferdam hatch	
Cofferdam Hatch			air pipe from afterside to through shell 3 1/2" with clamp & rubber fitting	

These plugs & canvas covers are on board. No snuffing holes.

Particulars of Gangway Cargo and Coaling Ports: —

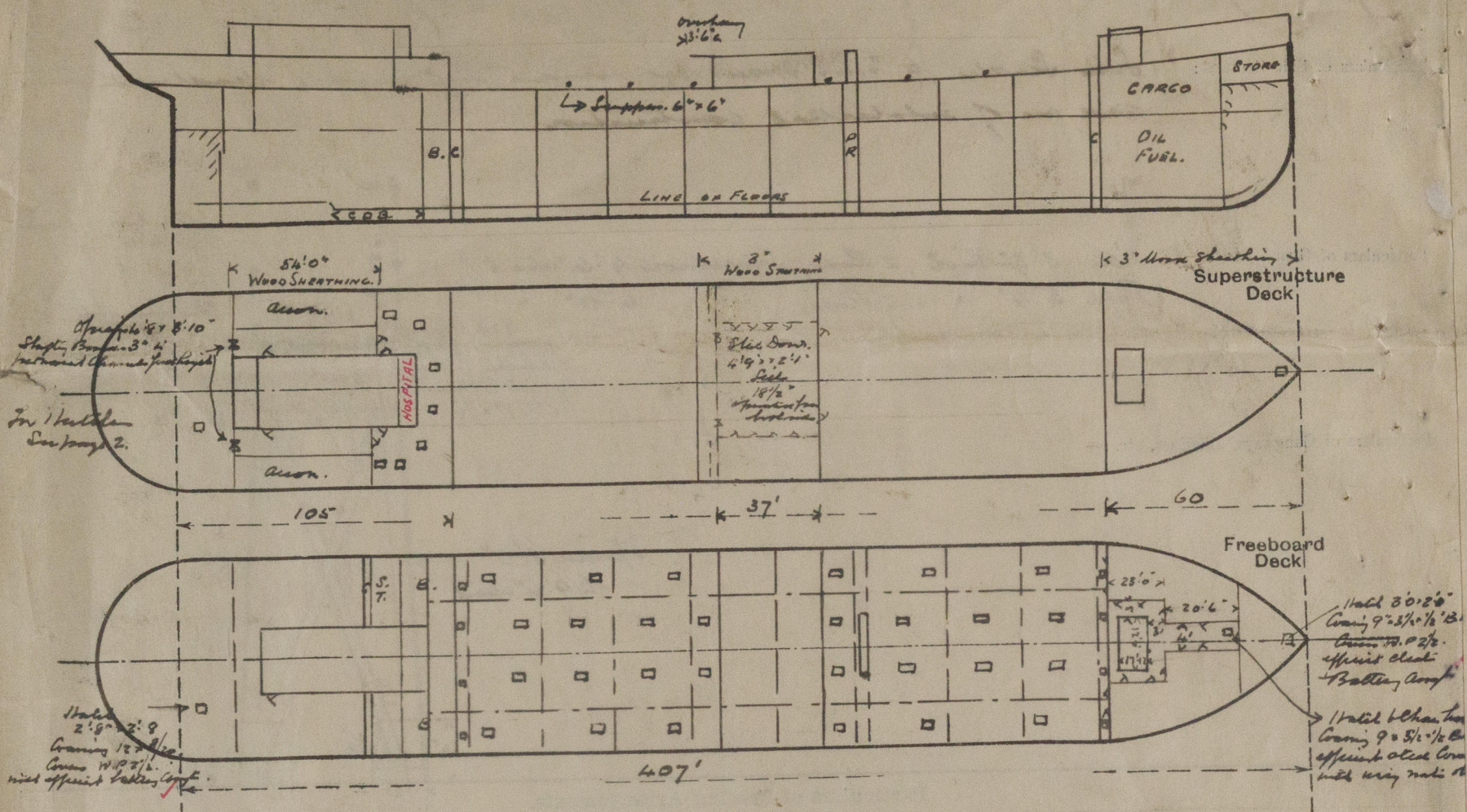
Nil



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SAN SALVADOR

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:—



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

Builder's name and yard number

Armstrong Whitworth & Co.

Names of sister ships

OMIT

Owners

Eagle Oil & Shipping Co.

Fee £

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