

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No 203

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Valencia</u>
Having <u>Forecastle - combined Fore Bridge</u>					Date of Survey <u>1st 9th Oct. 1932</u>
(Type of Superstructures.)					Name of Surveyor <u>A. B. P. 203</u>
Ship's Name <u>"ALDECOA"</u>	Nationality and Port of Registry <u>Spanish Bilbao</u>	Official Number	Gross Tonnage <u>6089</u>	Date of Build <u>1922</u>	Particulars of Classification <u>+ 100 A</u> <u>Shells 50 with freeboard</u> <u>S.S. Val. No. 2-30</u>
Moulded Dimensions: Length <u>354.62</u> ✓ Breadth <u>49.44</u> ✓ Depth <u>33.96</u> ✓					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>11515</u> tons					
Coefficient of fineness for use with Tables <u>.485</u> <u>2857</u>					
Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth <u>33.96</u>		(a) Where D is greater than Table depth (D - Table depth) R = <u>(34.00 - 23.84) 2.45 = + 24.94</u>		Moulded Breadth (B) <u>49.44</u> ✓	
Stringer plate <u>.04</u>		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>11.94</u> ✓	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam = <u>12.40</u> ✓	
Depth for Freeboard (D) = <u>34.00</u>				Difference = <u>.46</u> ✓ <u>max</u>	
				Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.46}{4} \times 24.94 = -.03$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <u>Bridge</u> ...	<u>234.84</u> ✓	<u>234.84</u>	<u>8.0</u> ✓	✓	<u>234.84</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward					
Fore enclosed <u>house</u> ...	<u>33.60</u> ✓	<u>33.60</u>	<u>8.0</u> ✓	✓	<u>33.60</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<u>268.44</u> ✓	<u>268.44</u>			<u>268.44</u>

Standard Height of Superstructure	<u>7.046</u>
" " R.Q.D.	✓
Deduction for complete superstructure	<u>39.14</u>
Percentage covered $\frac{S}{L} =$	$\frac{268.44}{354.62} = .757506$
" " $\frac{S_1}{L} =$	<u>.7506</u> ✓
" " $\frac{E}{L} =$	<u>.7506</u> ✓
Percentage from Table, Line A.	<u>.6922</u>
(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 =	<u>39.14 × .6922 = - 27.11</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>45.46</u>	1		<u>45.46</u>	<u>36.81</u>	<u>36.81</u>	1		<u>36.81</u>
$\frac{1}{4}$ L from A.P. ...	<u>20.36</u>	4		<u>81.44</u>	<u>14.64</u> ✓	<u>14.62</u>	4		<u>58.48</u>
$\frac{2}{4}$ L " ...	<u>5.03</u>	2		<u>10.06</u>	<u>3.68</u> ✓	<u>3.65</u>	2		<u>7.30</u>
Amidships ...		4		<u>.00</u>			4		
$\frac{3}{4}$ L from F.P. ...	<u>10.04</u>	2		<u>20.08</u>	<u>7.00</u> ✓	<u>7.00</u>	2		<u>14.00</u>
$\frac{1}{4}$ L " ...	<u>40.43</u>	4		<u>161.72</u>	<u>27.99</u> ✓	<u>27.99</u>	4		<u>111.96</u>
F.P. ...	<u>91.52</u>	1		<u>91.52</u>	<u>67.52</u>	<u>67.52</u>	1		<u>67.52</u>
Total ...				<u>411.84</u>					<u>386.55</u>

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 = 7.10

" " aft of " = 7.10

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{115.29}{18} (.75 - .3453) = + 2.41$$

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 = 34.00
Summer freeboard = 8.384
Moulded draught (d) = 25.616

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.36 ✓ 6.36
1.62 = 14.44

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ 10066

Tons per inch immersion at summer load water line

T = 37.13

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

= 6.44

= 142 kips

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.485 + .68}{1.36} = \frac{1.165}{1.36}$

	+	-
Depth Correction ...	<u>24.94</u>	
Deduction for superstructures ...		<u>24.11</u>
Sheer correction ...	<u>2.41</u>	
Round of Beam correction ...		<u>.03</u>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...	<u>36.80</u>	
	<u>66.65</u>	<u>24.14</u>
Summer Freeboard =	<u>102.48</u>	<u>64</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>13.13</u> = <u>334</u> mm	Tropical Fresh Water Freeboard	<u>89.51</u> = <u>2273</u>
Fresh Water Line	<u>6.77</u> = <u>172</u>	Fresh Water	<u>95.87</u> = <u>2435</u>
Tropical Line	<u>6.36</u> = <u>162</u>	Tropical	<u>96.28</u> = <u>2445</u>
Winter Line below	<u>6.36</u> = <u>162</u>	Winter	<u>109.00</u> = <u>2769</u>
Winter North Atlantic Line		Winter North Atlantic	

29 OCT 1932

The scantlings of the ship are suitable for the freeboards assigned

002659-002666-0281 1/2

MARKING FORM
RECEIVED
20 JAN 1933

Holecoa

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

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

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

Particulars of Gangway Cargo and Coaling Ports:—

home fixed. -

No. discharges filed from spires below Freeboard Deck. -

Two side vents five ft. below freeboard deck.

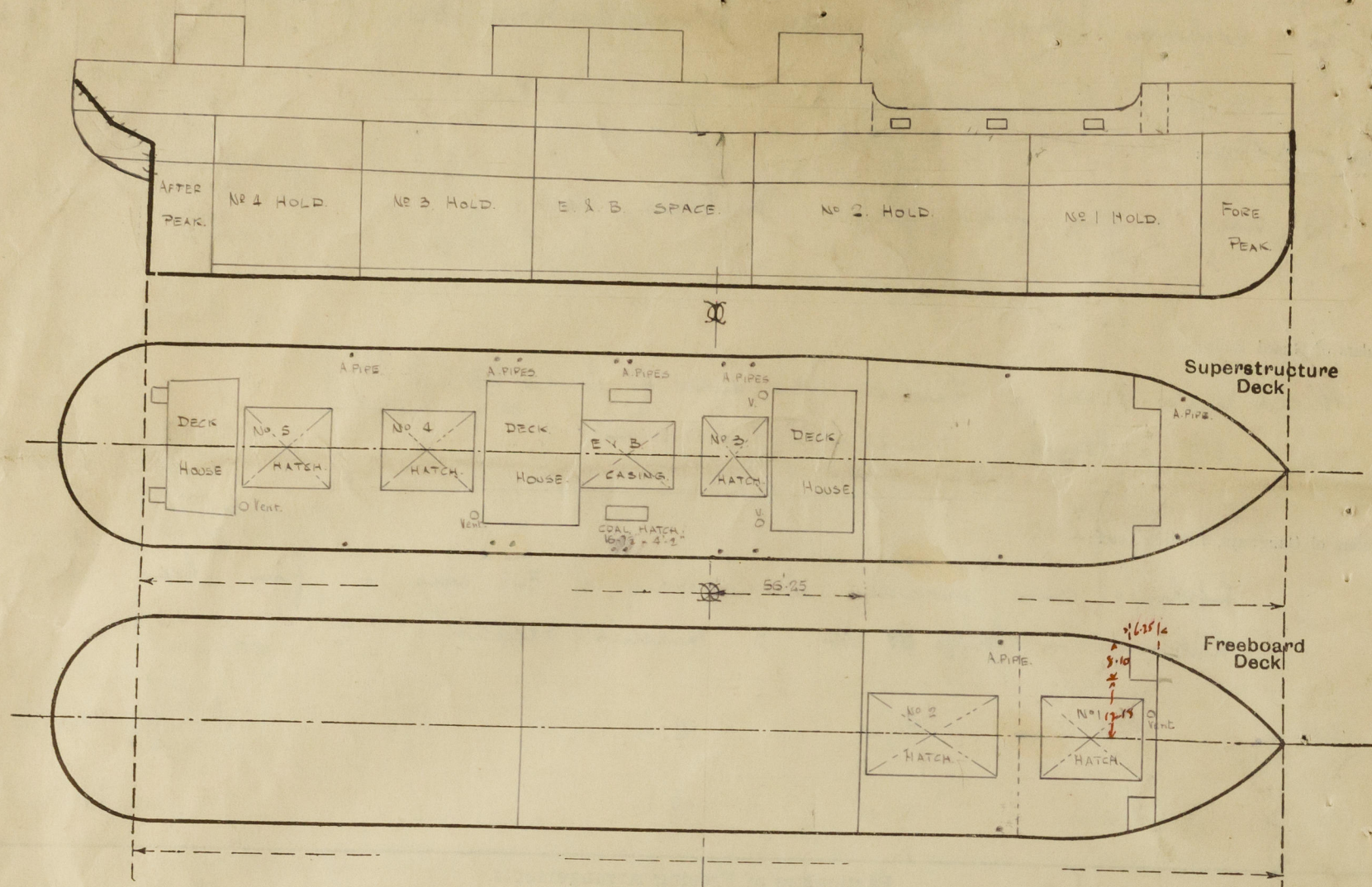
Edward Rails found in file. after end of Bridge 2 1/2
3'-7" in length. 3 rails - 1 1/2", 1" & 1" diam? ✓

Lifelines now provided as necessary in L¹ well - 1 from Crew
deckhouse in Bridge B² aft to midship deckhouse. -

State position of each freeing port After Well:—
(P* and A. position and height above deck edge) Forward Well:— N° 1: 13'-10" N° 2: 46'-7" both from fr.: N° 3: 7'-4" from aft. All 10" above deck.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 3 sails fitted to each of 10' diam: ✓

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

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:—



$$\begin{array}{r} 766 = 31.10 \\ + 6.75 \times 8.15 = 2.5' \\ \hline 70.75 \quad 33.60 \end{array}$$

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

Vessel examined & particulars taken on dry dock during a condition survey. ✓

Coal Hatches on Bridge Deck have 2" Coamings & are fitted with wood covers, tarpaulins (2) & efficient lashing arrangements. ✓

Builder's name and yard number Soc. Española de Const. Naval. Bilbao.

Names of sister ships _____

Owners F. Alderica.

Fee £ Plus 925/- : Received by me _____

Rpt. C.1

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Moulded
Coeff

Moulded d
Stringer pl
Sheathing
T (L

Poop e
" R.Q.D.
" Bridge

"
" F'ole e
" o
" Trunk
" Tonnag
"

Station

A.P. ...

$\frac{1}{8}$ L from A.L

$\frac{3}{8}$ L "

Amidships

$\frac{3}{8}$ L from F.P

$\frac{1}{8}$ L "

F.P. ...

Total

Correcti

If limit

Deduction

Addition

Atlantic

Dep

Sun

Deduction for

Winter f

Addition for
required)



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Foundation

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