

24 MAR 1937

Index. No. 35244
(For London Office only.)

Rpt. C.11.

Preliminary Report.
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 58206

Computation of Freeboard for motor vessel.
having poop connected to raised quarter deck and
forecastle.
(Type of Superstructures.)

Ship's Name <u>Cuba S.B. No. 424</u> <u>to centre of rudder stock</u>	Nationality and Port of Registry <u>I.F.S.</u> <u>Dublin.</u>	Official Number <u>-</u>	Gross Tonnage <u>approx</u> <u>500</u>	Date of Build <u>1934</u>
Moulded Dimensions: Length <u>143</u>	Breadth <u>24</u>	Depth <u>12</u>		
Moulded displacement at moulded draught = 85 per cent. of moulded depth				
Coefficient of fineness for use with Tables = <u>.709</u> <u>.707</u>				

Port of Survey Glasgow
Date of Survey 23 March 1937
Name of Surveyor M Macleod
Particulars of Classification +100 A1.
contemplated.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>12.0</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(12.029 - 9.54) 1.104 = 2.71</u>	Moulded Breadth (B) <u>24.0</u>
Stringer plate <u>.029</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>2.459</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{24 \times 12}{50} = 5.76$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u>	If restricted by superstructures <u>✓</u>	Ship's Round of Beam = <u>6</u>
Depth for Freeboard (D) = <u>12.029</u>		Difference <u>excess = .24</u>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.24}{4} \times .2308 = .01$

B. 5m.10.37.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>33.33</u>	<u>33.33</u>	<u>4'6" above R.Q.D.</u>	<u>✓</u>	<u>33.33</u>
" overhang	<u>32'0 1/2"</u>		<u>actual 7'0"</u>		
R.Q.D. enclosed <u>at side</u>	<u>55'6 1/2"</u>	<u>56.73</u>	<u>3'3"</u>	<u>3.25/3.291</u>	<u>56.02</u>
" overhang <u>at centre</u>	<u>57'4"</u>				
Bridge enclosed	<u>56.73</u>				
" overhang aft					
" overhang forward					
F'cle enclosed	<u>20'0 1/4"</u>	<u>20.10</u>	<u>6'9"</u>	<u>✓</u>	<u>20.10</u>
" overhang	<u>20.10</u>	<u>.29</u>			<u>.29</u>
Trunk aft	<u>.59</u>				
" forward					
Tonnage opening aft	<u>110.75</u>				
" " forward	<u>110'9"</u>	<u>110.45</u>			<u>109.74</u>
Total					

Standard Height of Superstructure 6.00
" " R.Q.D. 3.291
Deduction for complete superstructure 20.36
Percentage covered $\frac{S}{L} = \frac{77.12}{100}$
" " $\frac{S_1}{L} = \frac{76.92}{100}$
" " $\frac{E}{L} = \frac{76.42}{100}$
Percentage from Table, Line A. 70.89
(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 = $20.36 \times .7089 = 14.43$

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<u>24.36</u>	<u>1</u>	<u>24.36</u>	<u>36</u>	<u>36.00</u>	<u>1</u>	<u>36.00</u>
1/4 L from A.P.	<u>10.84</u>	<u>4</u>	<u>43.36</u>	<u>15 1/2</u>	<u>15.50</u>	<u>4</u>	<u>62.00</u>
1/2 L "	<u>2.68</u>	<u>2</u>	<u>5.36</u>	<u>4 1/2</u>	<u>4.50</u>	<u>2</u>	<u>9.00</u>
Amidships	<u>-</u>	<u>4</u>	<u>-</u>	<u>0</u>	<u>-</u>	<u>4</u>	<u>-</u>
3/4 L from F.P.	<u>5.36</u>	<u>2</u>	<u>10.72</u>	<u>6 1/4</u>	<u>6.25</u>	<u>2</u>	<u>12.50</u>
1/4 L "	<u>21.68</u>	<u>4</u>	<u>86.72</u>	<u>23 1/4</u>	<u>23.75</u>	<u>4</u>	<u>95.00</u>
F.P.	<u>48.72</u>	<u>1</u>	<u>48.72</u>	<u>54</u>	<u>54.00</u>	<u>1</u>	<u>54.00</u>
Total			<u>219.24</u>				<u>268.50</u>

Mean actual sheer aft = Excess
Mean standard sheer aft = Excess
Mean actual sheer forward = Excess
Mean standard sheer forward = Excess
Length of enclosed superstructure forward of amidships = > .1L
" " aft of " = > .1L
but less than standard height of a raised quarter deck

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{49.26}{18} \left(.75 - \frac{38.46}{100} \right) = -1.00$
DEFICIENT HEIGHT
If limited on account of midship superstructure. Yes. Nil.
If limited to maximum allowance of 1 1/2 ins. per 100 ft. 36.54

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>15.279</u> Summer freeboard = <u>3.52</u> Moulded draught (d) = <u>11.759</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.94 = 3</u> Addition for Winter North Atlantic Freeboard (if required) = <u>3 + 2 = 5</u>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ <u>834</u> Tons per inch immersion at summer load water line $T =$ <u>7.08</u> Deduction = $\frac{\Delta}{40 T}$ inches = <u>2.94 = 3</u>	TABULAR FREEBOARD (corrected for Flush Deck (if required)) Correction for coefficient $\frac{.707 + .68}{1.36} = \frac{1.387}{1.36}$ Depth Correction <u>2.71</u> Deduction for superstructures <u>14.43</u> Sheer correction <u>.01</u> Round of Beam correction <u>39.00</u> Correction for Thickness of Deck amidships <u>-</u> Other corrections, scantlings, etc. <u>-</u> Summer Freeboard = <u>42.23</u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: 3'6 1/4"

Tropical Fresh Water Line above Centre of Disc	<u>4 1/4"</u>	Tropical Fresh Water Freeboard	<u>3'2"</u>
Fresh Water Line " "	<u>3"</u>	Fresh Water " "	<u>3'3 1/4"</u>
Tropical Line " "	<u>1 1/4"</u>	Tropical " "	<u>3'5" (LIMITED.)</u>
Winter Line below " "	<u>3"</u>	Winter " "	<u>3'9 1/4"</u>
Winter North Atlantic Line " "	<u>5"</u>	Winter North Atlantic " "	<u>3'11 1/4"</u>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	{	Height above Deck	...	...	...	...	...	...	...
		Thickness	...	...	...	...	...	...	...
		Stiffeners	...	...	...	...	...	...	...
		Brackets, Stays	...	...	...	...	...	...	...
HATCH BEAMS	{	Number	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...
		Scantling and Sketch	...	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...	...
FORE AND AFTERS	{	Number	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...
		Unsupported Lengths	...	...	...	...	...	...	...
		Scantling* and Sketch	...	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...	...
HATCH COVERS	{	Material	...	...	...	...	...	...	...
		Thickness	...	...	...	...	...	...	...
		How fitted	...	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...

*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 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:—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles:—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.

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						
Forward Well						

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.

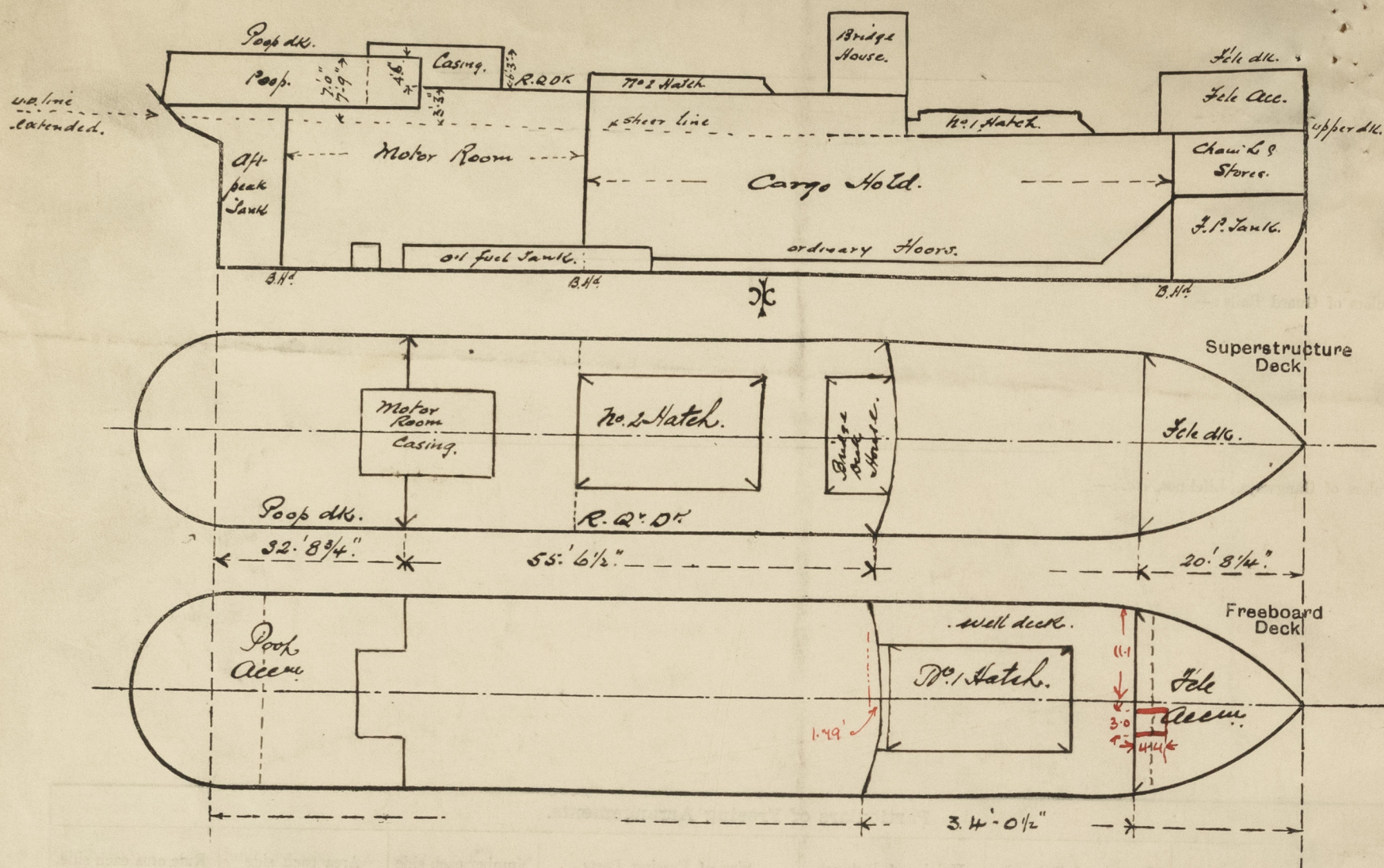
Particulars of Superstructures, Trunks, Casings, Deckhouses.

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								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super- structure Decks								
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								

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

Particulars of Closing Appliances (state if capable of being manipulated from both sides).			
Poop Bulkhead	...	...	...
Raised Quarter Deck Bulkhead	...		
Bridge, After Bulkhead	...	...
Bridge, Forward Bulkhead	...	...
Forecastle Bulkhead	...	...	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...		
Exposed Machinery Casings on Superstructure Decks	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...
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:—



Raised Quarter Deck

Equiv. Std. $1.49 \times \frac{2}{3} = 1.19$
 $+ \underline{55.54}$
56.73

Fossil Recess

$$\frac{4.4 \times 3.0}{22.2} = .59'$$
$$\frac{20.69}{\text{Enclosed} = 20.10}$$
$$\text{overhang} = .59'$$

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

Particulars supplied by Builders:-

Tell displacement at 1'-0" above estimated summer moulded draft - 925 tons.

" " " " " " " " " " " = 759 tons.

Opposed Midship Section & Profile, & Deck Plan.

Prop deck & Motor casing Plan.

(4 Laws.)

3 General Arrangement Plan.

Freeboard Request Form attached.

Builder's name and yard number

Ailsa S.B. Co. Ltd. ~ No. 427.

Names of sister ships.

Owners

V. Heiton & Co. L^{da}

Fee £

Received by me.