

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 34590
(For London Office only.)

27 DEC 4

F. 29.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ **Trawler**
having **Ice, main + quarter decks.**

(Type of Superstructures.)

Ship's Name CABO JUBY	Nationality and Port of Registry Portuguese, LISBON.	Official Number 266	Gross Tonnage 1907	Date of Build 1907
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Moulded Dimensions: Length **130'** Breadth **22.6'** Depth **13.0'**
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons
Coefficient of fineness for use with Tables **under .68 (lowest in Table)**

Port of Survey **LISBON.**
Date of Survey **21. 12. 34.**
Name of Surveyor **G.T.B. Scullard.**
Particulars of Classification **+100 A1.**
S.S.Nº 3. 6. 32.

<p>Depth for Freeboard (D)</p> <p>Moulded depth ... 13.00</p> <p>Stringer plate03</p> <p>Sheathing on exposed deck 3" P.P.</p> <p>$T \left(\frac{L-S}{L} \right) = 25 \times .2943 = .07$</p> <p>Depth for Freeboard (D) = 13.10</p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D - Table depth) R = (13.10 - 8.67) x 1.00 = + 4.43</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth - D) R =</p> <p>If restricted by superstructures</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) 22.5'</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} = 5.40$</p> <p>Ship's Round of Beam = 6"</p> <p>Difference .60</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.60}{4} \times \frac{.2894}{.2943} = -.04$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure 6.0'
„ overhang50					„ „ R.Q.D. 3.2'
R.Q.D. enclosed ...	70.46	70.50	9"	.93	20.49	Deduction for complete superstructure 19.0"
„ overhang93	.93		Percentage covered $\frac{S}{L} = \frac{70.57}{71.54}$
Bridge enclosed ...			corrected			„ „ $\frac{S_1}{L} = \frac{70.57}{71.06}$
„ overhang aft ...						„ „ $\frac{E}{L} = \frac{31.90}{32.38}$
„ overhang forward ...	21.24		5.93	5.93		Percentage from Table, Line A. 16.61 17.02
F'cle enclosed equivalent ...	22.46	21.24	6.4"	.6	20.99	(corrected for absence of forecastle (if required))
„ overhang ...	1.26	.63	corrected		.62	Percentage from Table, Line B. ✓
Trunk aft ...						(corrected for absence of forecastle (if required))
Tonnage opening aft ...	93.00	92.37			42.10	Interpolation for bridge less than .2L (if required) ✓
„ „ forward ...	41.74	41.74			41.48	Deduction = 19 x 16.61 = - 3.16 .23
Total1702

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	23.00	1		23.00	62	62	1		62	Mean actual sheer aft = 54 in
$\frac{1}{8}$ L from A.P. ...	10.235	4		40.94	22	22	4		88	Mean actual sheer forward = 54 in
$\frac{2}{8}$ L „ ...	2.53	2		5.06	4	4	2		8	Mean standard sheer aft
Amidships ...		4			0		4			Mean standard sheer forward
$\frac{3}{8}$ L from F.P. ...	5.06	2		10.12	5	5	2		10	Length of enclosed superstructure forward of amidships = .04 L
$\frac{1}{8}$ L „ ...	20.47	4		81.88	25	25	4		100	„ „ aft of „ = .5 L
F.P. ...	46.00	1		46.00	65	65	1		65	but of heightless that of a standard R. quarter deck
Total ...	207			207.00					333	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{126}{18} \left(.75 - \frac{.3577}{.3974} \right) = -2.78$

If limited on account of midship superstructure. **up. N. 2**

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

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 14.03</p> <p>Summer freeboard = 2.121</p> <p>Moulded draught (d) = 11.912</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.98</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 2.98 + 2 = 4.98 = 126</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches</p> <p>$d/4 = 76$</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <table border="1" style="width: 100%;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>4.43</td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td>3.16</td> </tr> <tr> <td>Sheer correction ...</td> <td></td> <td>.23</td> </tr> <tr> <td>Round of Beam correction ...</td> <td></td> <td>0.04</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td>2.16</td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. quarter-deck</td> <td>9.00</td> <td>.27</td> </tr> <tr> <td></td> <td>15.59</td> <td>3.20</td> </tr> </table> <p>Summer Freeboard = 25.382</p>		+	-	Depth Correction ...	4.43		Deduction for superstructures ...		3.16	Sheer correction23	Round of Beam correction ...		0.04	Correction for Thickness of Deck amidships ...	2.16		Other corrections, scantlings, etc. quarter-deck	9.00	.27		15.59	3.20
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...	152	Tropical Fresh Water Freeboard ...	4.93
Fresh Water Line „ „ ...	76	Fresh Water „ „ ...	5.69
Tropical Line „ „ ...	76	Tropical „ „ ...	5.69
Winter Line below „ „ ...	76	Winter „ „ ...	7.21
Winter North Atlantic Line „ „ ...	126	Winter North Atlantic „ „ ...	7.71

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N° 1	N° 2	N° 3	A	B	C	D	E		
Dimensions of Hatchway	3'2" x 4'	4' x 4'	4'2" x 4'1"	2'0" x 3'5"	1'6" x 2'9"	1'6" x 2'9"	5' x 3'	1'6" x 3'6"		
COAMINGS										
Height above Deck	9 1/2"	10"	15 1/2"	6"	9 1/2"	do B.	36"	7" above R.Q.D.		
Thickness	3/8"	3/8"	3/8"	5/16"	Casting	do B.	1/2"	5/16"		
Sides										
Stiffeners	2 1/2 x 1 1/2	do N° 1	do N° 1	do N° 1	-	-	-	do N° 1		
Brackets, Stays	6"									
HATCH BEAMS										
Number										
Spacing										
Scantling and Sketch										
Bearing Surface										
FORE AND AFTERS										
Number										
Spacing										
Unsupported Lengths										
Scantling* and Sketch										
Bearing Surface										
HATCH COVERS										
Material	W.P.	W.P.	do N° 2	W.P.	3/16" hinged steel	W.P.	W.P.	W.P.		
Thickness	2"	2"	do N° 2	2 1/4"	plate fastened	2"	2"	2"		
How fitted	P.S.	P.S.	do N° 2	P.S.	by 2 dogs.	do B.	do B.	do B.		
Bearing Surface	1 3/4"	1 1/2"	do N° 2	1 3/4"	do B.	do B.	do B.	do B.		
Spacing of Cleats	24" x 27"	27"	do N° 2	24" x 27"	do B.	do B.	do B.	do B.		
Number of Tarpaulins	2	2	do N° 2	2	do B.	do B.	do B.	do B.		

*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:—

Fiddle vents in good condition, with sliding openings for ash buckets.
Engine room skylight of wood, coaming 10' above casing, sufficient.

Particulars of Flush Bunker Scuttles:—

3 each I.P.S. 22" dia, screwed in place.

Particulars of Companionways:—

Nil

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

In Forecastle 1- 4 3/4" x 12 1/2"; 1- 7 1/2" x 2 1/2"; one mushroom 6" L-
Crews Quarters. wood plugs & canvas covers provided.

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

Nil

Particulars of Gangway Cargo and Coaling Ports:—

Nil

Particulars of Scuppers and Sanitary Discharge Pipes:—

Nil

Particulars of Side Scuttles:—

Nil

Particulars of Guard Rails:—

Forecastle, 2 rows of chains at 20" + 39". Stanchions 48" apart.

Particulars of Gangways, Lifelines, etc.:—

In Forecastle a full width mesh plate 17" high.

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 R.Q.D.	40'5"	31"	30" x 12" - 1 24" x 12" - 1	3	74 sq. ft.	
Forward Well	37'	38"	24" x 12" - 1 17" x 14" - 1	2	3.65 "	

State position of each freeing port (F. and A. position and height above deck edge) } After Well:— 17', 29', 41' } 6 1/2" above deck, 1
Forward Well:— 32', 35' } For one 8" above deck, after one flush with deck.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— R.Q.D. are shutters
Fore one shutter, one open rail.

Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

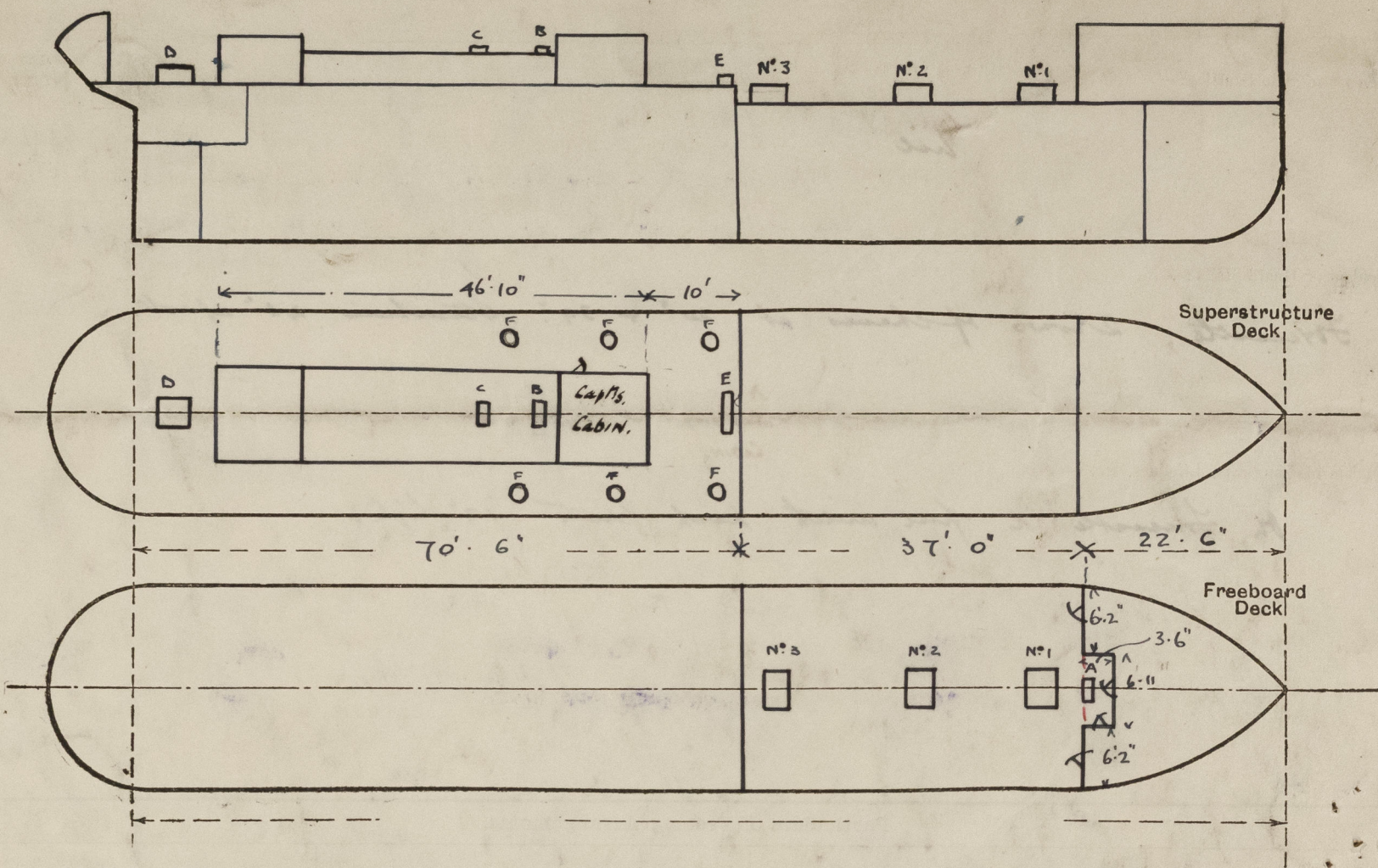
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	3/8"	3/8"	2 3/4" x 2 1/2" x 3/8"	20" each side of center line	—	4' x 22"	18"	6' 4"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	5/16"	5/16"	3" x 2 1/2" x 5/16"	31"	To beam.	4' x 22"	18"	6' 0"
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures 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).

Poop Bulkhead	
Raised Quarter Deck Bulkhead	No openings.
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Steel doors, hinged, operated both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged steel door in halves, operated both sides.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

Cabo Tuby.

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:—



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

- A hatch to nets store. B + C fiddling openings.
D skylight to crew quarters. E coal hatch.
F Flush bunker scuttles.

Vessel examined in drydock. Sitch fine wood sheathing 3" on F'dle deck, fore deck + R. Q. D.

Displacement scale not available.

$$\begin{array}{rcl} \text{F'dle} & \text{Clos'd} & 19.00 \\ \text{bunker} & \frac{2 \times 3.5 \times 6.17}{19.257} = & \frac{2.24}{21.24} \end{array}$$

$$O.H. = 1.26$$

$$17.46$$

Height.

at aft end: height at centre above
top of upper deck camber
Height at side

Height at forward end

$$\begin{array}{rcl} 6.00 & & \\ 4.50 & & \\ \frac{1.50 \times 7}{3} = & 1.00 & \\ \hline 4.50 & & \\ 5.50 & & \\ 6.50 & & \\ \hline 12.00 & & \\ 2 \times & 6.00 & \\ \hline 6.00 & & \\ \text{less sheathing} & .07 & \\ \hline 5.93 & & \end{array}$$

Builder's name and yard number

Goole S. B. + Repg. Co. Ltd. Goole

Names of sister ships

Owners

So: Commercial Maritime Ltd.

Fee £

6 — (see Lisbon 27/4/35)

Received by me



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