

15 FEB 1935

Index. No. **34635**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

F. 30

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ **Trawler**
having **1' cle, main + quarter decks.**

Port of Survey **Lisbon.**

Date of Survey **9-2-35**

Name of Surveyor **G. T. B. Scollard.**

Particulars of Classification **+100A1**
S. S. N° 2-8.33.

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
SANTA TERESINHA	Portuguese Lisbon.	293 302.67	1912	

Moulded Dimensions: Length **133.33'** Breadth **22.88'** Depth **12.75'**

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

Coefficient of fineness for use with Tables **under .68 (lowest in Tables).**

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	12.75	(a) Where D is greater than Table depth (D-Table depth) R = (12.86-8.89) × .026 = +4.087		Moulded Breadth (B)	22.88
Stringer plate	.03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓		Standard Round of Beam = $\frac{B \times 12}{50}$	5.49
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \times .3175$.08			Ship's Round of Beam	7
Depth for Freeboard (D) =	12.86	If restricted by superstructures ✓		Difference	1.51
				Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{1.51}{4} \times .3175 = -.12$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...	71.66	71.66	1.17	$\times \frac{1.17}{3.222}$	26.02
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed (underbelly) ...	19.33	19.33	5.54	$\times \frac{5.54}{6.0}$	17.85
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ forward ...					
Total ...	91.00	91.00			43.87

Standard Height of Superstructure	6.00
„ „ R.Q.D.	3.222
Deduction for complete superstructure	19.33
Percentage covered $\frac{S}{L} =$	68.25
„ „ $\frac{S_1}{L} =$	68.25
„ „ $\frac{E}{L} =$	32.90
Percentage from Table, Line A.	
(corrected for absence of forecastle (if required))	17.46
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	19.33 × .1746 = -3.37

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	23.33	1		23.33	53	53.00	1		53.00
$\frac{1}{2}$ L from A.P. ...	10.38	4		41.52	19	19.00	4		76.00
$\frac{2}{3}$ L „ ...	2.57	2		5.14	5	5.00	2		10.00
Amidships ...		4		✓	0	✓	4		✓
$\frac{2}{3}$ L from F.P. ...	5.13	2		10.26	11	11.00	2		22.00
$\frac{1}{2}$ L „ ...	20.76	4		83.04	25	25.00	4		100.00
F.P. ...	46.66	1		46.66	65	65.00	1		65.00
Total ...	209.97			209.95					326.00

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{116.05}{18} \left(.75 - \frac{34.12}{40.88} \right) = -2.64$$

If limited on account of midship superstructure.

Yr. N.Y.

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	14.03
Summer freeboard	2.33
Moulded draught (d)	11.70

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4} \text{ inches} = \frac{11.70}{4} = 2.92 = 74\%$$

Addition for Winter North Atlantic Freeboard (if required) =

124%

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

 $T =$

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

$$\frac{1}{4} = 74\%$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	4.07	
Deduction for superstructures		3.37
Sheer correction		
Round of Beam correction		0.12
Correction for Thickness of Deck amidships	2.04	
Other corrections, scantlings, etc.	12.00	
	18.11	3.49

$$\text{Summer Freeboard} = 28.02$$

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

Tropical Fresh Water Line above Centre of Disc	148%	Tropical Fresh Water Freeboard	712%
Fresh Water Line	74%	Fresh Water	638%
Tropical Line	74%	Tropical	638%
Winter Line below	74%	Winter	786%
Winter North Atlantic Line	124%	Winter North Atlantic	836%

23 AUG 1935

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RECEIVED 28 MAY 1938

RECEIVED 17 AUG 1935

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	1	2	3	4	B	D			
Dimensions of Hatchway	3'1" x 3'	1'6" x 2'9"	5'2" x 3'2"						
COAMINGS	Height above Deck ... 13"	10"	19"						
	Thickness { Sides ... 1/4"	Castings	3/16"						
	Stiffeners ...								
	Brackets, Stays ...	3" x 1 1/2"							
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.	Hinged steel covers						
	Thickness ...	3"							
	How fitted ...	P+S							
	Bearing Surface ...	1 1/2"							
Spacing of Cleats	...	24"							
Number of Tarpaulins	...	3							

*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*

Particulars of fiddle, funnel and ventilator coamings:—

Funnel Vents. in good condition, with sliding openings for ash buckets. Engine room skylight, part of steel casing, efficient & in good condition.

Particulars of Flush Bunker Scuttles:—

4 each, Port & Starboard sides. Secured covers. One in middle of R.Q.D. forward end.

Particulars of Companionways:—

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

Forecastle: 1-11' x 6" } 2 canvas funnels. Wood plug and 1-10' x 6 1/2" } canvas cover.

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

At Forecastle bulkhead. 1-4'6" x 1 1/2" L Freshwater tanks. Door plugs provided.

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes:—

Particulars of Side Scuttles:—

In Forecastle. 7' with efficient hinged cover.

Particulars of Guard Rails:—

Forecastle. 10', 24", 38" x 45".

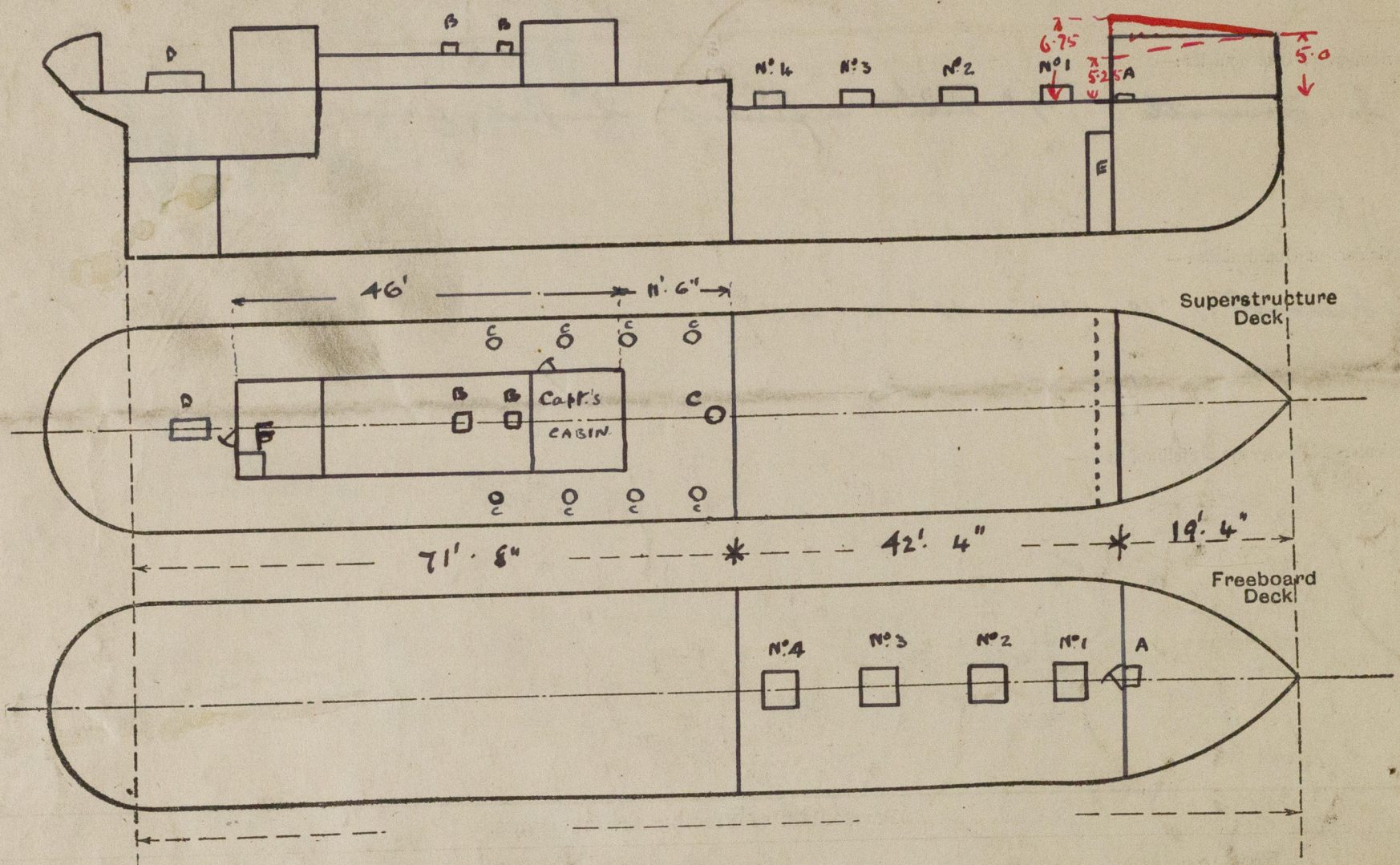
Particulars of Gangways, Lifelines, etc.:—

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	71'6"	30"	18" x 10"	3	3.75 sq. ft.	14.5 sq. ft.
Forward Well	42'	42"	18" x 10"	1	1.25 sq. ft.	10.7 sq. ft.
State position of each freeing port (F. and A. position and height above deck edge) { After Well: 12', 33.5', 56' Height above deck 6" Flush with deck. Hinged shutters. Forward Well: at R.Q.D. 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								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	-	3/16"	2 1/4" x 2 1/4" x 3/16"	3'4" x 3'6"	-	3'11" x 22"	14"	6'9"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	-	1/4"	3" x 3" x 3/8"	2'8"	-	3'10" x 22"	18"	6'8"
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	Hinged steel door. 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	

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 peak. B. Fiddley openings. C. Flush bunker scuttles.
D. Small skylight to quarters fitted with port glasses. E. Fresh water tanks built in.
F. Opening to quarters 26" x 26"; flush with deck.
Vessel examined in drydock. 3" Pitch Pine sheathing on side, fore & R. Q. Decks.

Deadweight scale not available.

Whaler back
At aft end Ht. at center above
top of upper deck center = 6.75
Height at side = 5.25
 $1.50 \times \frac{2}{3} = 1.00$
5.25
6.25
Ht. at forward end = 5.00
2 11.25
Mean height = 5.62

Builder's name and yard number.

Bochane & Sons, Seelby.

Names of sister ships.

Owners.

Sociedade de Pesca Santa Fé Ltda. Lisbon.

Fee £

Received by me



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Foundation