

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having *Poop Bridge and Forecastle.*

(Type of Superstructures.)

Ship's Name *E.S. Alfonso Perez "now Cantalaria."* Nationality and Port of Registry *Sanfander Spanish* Official Number *540* Gross Tonnage *5649* Date of Build *1919-2.*

Moulded Dimensions: Length *410' 0"* Breadth *54' 1"* Depth *29' 9"*

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

Coefficient of fineness for use with Tables

Port of Survey *Bilbao*

Date of Survey *22-23 March 1937.*

Name of Surveyor *J. de Benzo*

Particulars of Classification *100 A.I.*

*S.S. B/c No 3. 6. 31. In later survey reported*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <i>29' 9"</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(29' 9" - 27' 33") 3 = + 7' 38"</i>	Moulded Breadth (B) <i>54' 1"</i> = <i>54' 0"</i>
Stringer plate ... .. <i>0' 04"</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>2' 46"</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{54 \times 12}{50} = 12' 96"$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = <i>13 1/2"</i>
Depth for Freeboard (D) = <i>29' 9"</i>		Difference <i>excess</i> = <i>54"</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{54}{4} \times 0.4988 = -0' 04"$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<i>49' 0"</i>	<i>43' 75"</i>	<i>8' 3"</i>	<input checked="" type="checkbox"/>	<i>43' 75"</i>
„ overhang ... ..	<i>43' 75"</i>		<i>8' 0"</i>		
R.Q.D. enclosed ... ..	<i>✓</i>		<i>8' 5"</i>		
„ overhang ... ..	<i>✓</i>		<i>8' 3"</i>	<input checked="" type="checkbox"/>	<i>114' 75"</i>
Bridge enclosed ... ..	<i>114' 75"</i>	<i>114' 75"</i>	<i>8' 3"</i>		
„ overhang aft ... ..	<i>✓</i>		<i>8' 0"</i>		
„ overhang forward ... ..	<i>✓</i>		<i>8' 3"</i>	<input checked="" type="checkbox"/>	<i>47' 00"</i>
F'cle enclosed ... ..	<i>47' 0"</i>	<i>47' 00"</i>	<i>8' 3"</i>		
„ overhang ... ..	<i>✓</i>				
Trunk aft ... ..	<i>✓</i>				
„ forward ... ..	<i>✓</i>				
Tonnage opening aft ... ..	<i>✓</i>				
„ forward ... ..	<i>✓</i>				
Total ... ..	<i>205' 50"</i>	<i>205' 50"</i>			<i>205' 50"</i>

Standard Height of Superstructure ... ..	<i>7' 50"</i>
„ „ R.Q.D. ... ..	<input checked="" type="checkbox"/>
Deduction for complete superstructure ... ..	<i>42' 00"</i>
Percentage covered $\frac{S}{L} =$ ... ..	<i>50' 12"</i>
„ „ $\frac{S_1}{L} =$ ... ..	<i>50' 12"</i>
„ „ $\frac{E}{L} =$ ... ..	<i>50' 12"</i>
Percentage from Table, Line A. <input checked="" type="checkbox"/>	
(corrected for absence of forecastle (if required)) <input checked="" type="checkbox"/>	
Percentage from Table, Line B. <i>36' 12"</i>	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required) <input checked="" type="checkbox"/>	
Deduction = <i>42' 00" x 36' 12" = 15' 14"</i>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<i>51' 00"</i>	1		<i>51' 00"</i>	<i>6' 0"</i>	<i>45' 00"</i>	1		<i>45' 00"</i>
1/4 L from A.P. ... ..	<i>22' 70"</i>	4		<i>90' 80"</i>	<i>3' 6"</i>	<i>31' 60"</i>	4		<i>126' 40"</i>
3/4 L „ ... ..	<i>5' 61"</i>	2		<i>11' 22"</i>	<i>1' 0"</i>	<i>7' 10"</i>	2		<i>14' 20"</i>
Amidships ... ..	-	4		-	<i>0' 0"</i>	-	4		-
3/4 L from F.P. ... ..	<i>11' 22"</i>	2		<i>22' 44"</i>	<i>1' 2"</i>	<i>11' 10"</i>	2		<i>22' 20"</i>
1/4 L „ ... ..	<i>45' 39"</i>	4		<i>181' 56"</i>	<i>5' 8"</i>	<i>51' 80"</i>	4		<i>207' 20"</i>
F.P. ... ..	<i>102' 00"</i>	1		<i>102' 00"</i>	<i>14' 9"</i>	<i>141' 00"</i>	1		<i>141' 00"</i>
Total ... ..				<i>459' 02"</i>					<i>582' 00"</i>

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*

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{122' 98"}{18} \left( \frac{75-2506}{2L} \right) = -3' 41"$$

If limited on account of midship superstructure. ☒

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ☒

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *Ft.*

Summer freeboard = *\_\_\_\_\_*

Moulded draught (d) = *\_\_\_\_\_*

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = *\_\_\_\_\_*

Addition for Winter North Atlantic Freeboard (if required) = *\_\_\_\_\_*

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

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

= *\_\_\_\_\_*

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... .. *7' 38"*

Deduction for superstructures ... .. *15' 17"*

Sheer correction ... .. *3' 41"*

Round of Beam correction ... .. *0' 04"*

Correction for Thickness of Deck amidships ... .. *\_\_\_\_\_*

Other corrections, scantlings, etc. ... .. *\_\_\_\_\_*

+	-
<i>7' 38"</i>	<i>15' 17"</i>
<i>3' 41"</i>	<i>0' 04"</i>
<i>7' 38"</i>	<i>18' 65"</i>
	<i>- 11' 27"</i>
	Summer Freeboard = <i>_____</i>

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

Tropical Fresh Water Line above Centre of Disc ... ..	Tropical Fresh Water Freeboard ... ..
Fresh Water Line „ „ ... ..	Fresh Water „ „ ... ..
Tropical Line „ „ ... ..	Tropical „ „ ... ..
Winter Line below „ „ ... ..	Winter „ „ ... ..
Winter North Atlantic Line „ „ ... ..	Winter North Atlantic „ „ ... ..

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

Description of Hatchway		HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS					
		On Freeboard Deck			On Superstructure Deck		
Dimensions of Hatchway		Holds Nos 1, 2, 4, 5.			Holds Nos 3, 6.		
COAMINGS		31'6" x 21'0"			17'0" x 15'0"		
COAMINGS	Height above Deck	36"			36"		
	Thickness	48"			48"		
	Stiffeners	None			None		
	Brackets, Stays	None			None		
HATCH BEAMS		13'1" x 4'0"			13'1" x 4'0"		
Bearing Surface		None filled			None filled		
FORE AND AFTERS		None filled			None filled		
HATCH COVERS		W. Pine			W. Pine		
Spacing of Cleats		24"			24"		
Number of Tarpaulins		(2)			(2)		

Particulars of fiddle, funnel and ventilator coamings:— The fiddle casing is 8'6" above Bridge Deck has steel grating covered by steel hinged covers permanently fixed in their positions. The engine skylight is of steel with flaps and bull eye glasses. The funnel casing is 18" above fiddle top. 2 vents 26" diam to stoke hold 72" coamings above fiddle top and 4 vents to Engine Room with 36" coamings and 24" diam all in good condition.

Particulars of Flush Bunker Scuttles:—

None fitted.

Particulars of Companionways:—

One on Poop Deck of steel 5'7" high x 3'9" x 3'2" has wood door 1 1/2" thick leads to sailors accommodation. No line 28 ft. 2 skylights of steel 5'0" x 2'6" x 1'6" coamings have steel hinged covers with bull eye glasses.

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

On freeboard Deck Forewell 4 vents 24" diam x 36" coaming to holds Nos 1, 2. On Poop Deck 2 vents to hold No 4. 24" diam x 36" coaming - 2 vents to forewell. On Bridge Deck 2 vents to forewell 24" diam x 25'0" high and 2 vents to hold No 2 24" diam x 36" coaming. On Forecastle Deck 2 vents to forewell 24" diam x 36" coaming. All ventilator coamings are provided with wood and canvas covers.

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

All air pipes are of galvanized iron 3 1/2" diam x 3'0" high above deck have wood plugs. Soundino pipes are flush on deck and have metal screw covers.



Particulars of Gangway Cargo and Coaling Ports:—

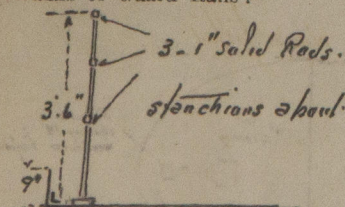
None fitted.

Particulars of Scuppers and Sanitary Discharge Pipes:— 4 scuppers on each well flush on deck. At midship W.E. and wash places of Engineers and officers discharging just below freeboard Deck have storm valves fitted. Sailors W.E. and wash places discharging just below freeboard Deck have storm valves fitted in all discharge pipes.

Particulars of Side Scuttles:—

No side scuttles are provided below the freeboard Deck. Side scuttles are fitted to poop and forecastle accommodations are situated about 2'0" below the poop and forecastle Decks and are provided with dead light covers fixed on their positions.

Particulars of Guard Rails:—



Guard rails are provided in all exposed positions of freeboard and superstructure Decks as shown in sketches.

Particulars of Gangways, Lifelines, etc.:—

Life lines now fitted in both wells.

## 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	Rails	✓	✓	✓	✓	✓
Forward Well	Rails	✓	✓	✓	✓	✓

State position of each freeing port (F. and A. position and height above deck edge) After Well:— 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.

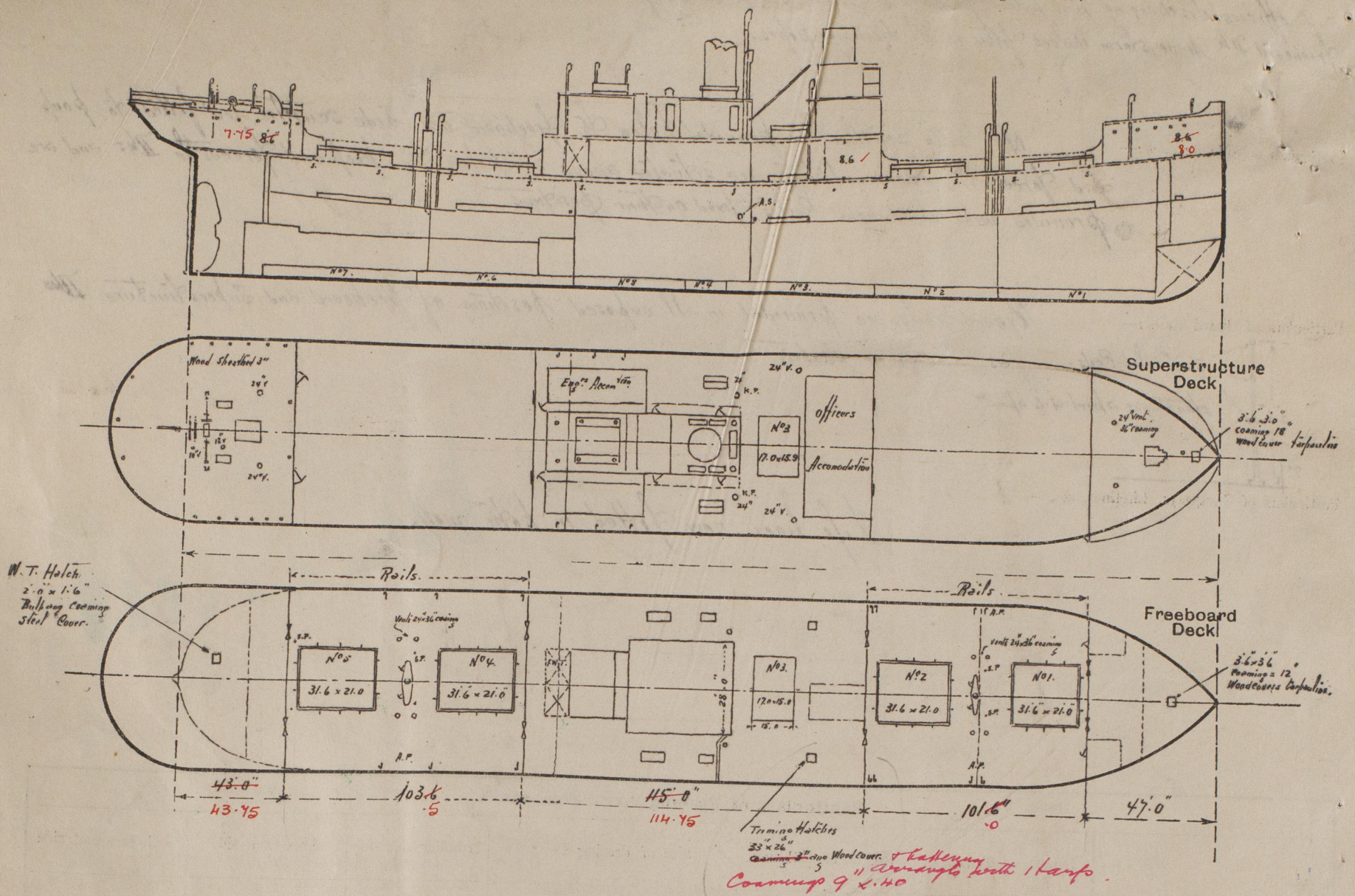
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	18" x 48"	40	6 x 3 1/2 L	26"	Lugs top & bottom	(2) 5'6" x 2'2"	13"	8'3"
Raised Quarter Deck Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead	18" x 48"	40	6 1/2 x 3 1/2 L	26"	Lugs top & bottom	(2) 5'6" x 3'11"	18"	8'3"
Bridge, Forward Bulkhead	20" x 50"	40	8 x 3 1/2 x 3 1/2 L	30"	Lugs top & bottom	(2) 6'2" x 4'6"	20"	8'3"
Forecastle Bulkhead	18" x 48"	38	6 x 3 1/2 L	25"	Lugs top & bottom	(2) 6'2" x 4'6"	18"	8'3"
Trunk, Aft	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	18" x 48"	38	4 x 3 1/2 L	27"	✓	None	✓	8'3"
Exposed Machinery Casings on Superstructure Decks	18" x 40"	36	4 x 3 1/2 L	27"	✓	(2) 5'6" x 2'0"	18"	8'3"
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	W.T. steel hinged doors and chocks. Capable of being manipulated from both sides.
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	Steel plates fastened by screw studs through plating 12" apart.
Bridge, Forward Bulkhead	W.T. steel hinged doors with screw chocks through plating hinged.
Forecastle Bulkhead	3" wood boards in riveted channel bars all closed. Steel hinged doors to Lamp & Carpenter Rooms.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	None fitted.
Exposed Machinery Casings on Superstructure Decks	Steel hinged doors Capable of being manipulated from both sides.
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 shown on the following sketches:—



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

Builder's name and yard number

J. Coughlen & Sons. Vancouver B.C. Yard N°5.

Names of sister ships

✓

Owners

Angel Perez Izaguirre now. Direccion General de la Marina Mercante Santander. Spain.

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