

Rpt. C.11.

8254

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No.
(For London Office only.)

Computation of Freeboard for ~~Steamer~~ *Sailing Ship* Tanker
having *Poop, Bridge, Forecastle & Trunk*

Port of Survey *Bilbao*

Date of Survey *26th & 28th Jan 1933.*

Name of Surveyor *G. Dixon.*

Particulars of Classification *+ 100A1 carrying Petroleum in cylindrical tanks*
S.S. Bb. No. 2-29

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>"Gobes."</i>	<i>Spanish Bilbao</i>	<i>✓</i>	<i>3346</i>	<i>1921 3</i>

Moulded Dimensions: Length *330-08'* Breadth *47-82'* Depth *24-86'*
100-604 Mts. *14-57 Mts.* *7-514 Mts.*

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

Coefficient of fineness for use with Tables *.779*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>7-514 M.</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>8-33 (7-528 - 6-707) 25-40 = 174</i>	Moulded Breadth (B) <i>14-570 M.</i>
Stringer plate ... <i>.012 M.</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ = <i>291</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>365 M.</i>
Depth for Freeboard (D) = <i>7-528</i>		Difference <i>14</i>
		Restricted to
		Correction = $\frac{\text{Diff} \times (1 - \frac{S_1}{L})}{4}$ = $\frac{14}{4} \times .3521$ = <i>-1</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<i>26-65'</i>	<i>7-13'</i>	<i>2-134 M.</i>		<i>7-13'</i>	Standard Height of Superstructure <i>2075</i>
" overhang ...	<i>8-118 M.</i>		<i>7-0'</i>			" " R.Q.D. <i>948</i>
R.Q.D. enclosed ...	<i>✓</i>					Deduction for complete superstructure
" overhang ...	<i>✓</i>					Percentage covered $\frac{S}{L} =$ <i>47.76</i>
Bridge enclosed ...	<i>96-25'</i>	<i>26-41'</i>	<i>2-134 M.</i>		<i>26-41'</i>	" " $\frac{S_1}{L} =$ <i>64.79</i>
" overhang aft ...	<i>29-336 M.</i>		<i>7-0'</i>			" " $\frac{E}{L} =$ <i>63.72</i>
" overhang forward ...	<i>✓</i>					Percentage from Table, Line A.
F'cle enclosed ...	<i>38-0'</i>	<i>11-58'</i>	<i>2-134 M.</i>		<i>11-58'</i>	(corrected for absence of forecastle (if required))
" overhang ...	<i>11-58 M.</i>		<i>7-0'</i>			Percentage from Table, Line B
Trunk aft ...	<i>87-18'</i>	<i>10-76'</i>	<i>2-134 M.</i>	<i>-x.9</i>	<i>9-68'</i>	(corrected for absence of forecastle (if required))
" forward ...	<i>82-8'</i>	<i>9-30'</i>	<i>2-134 M.</i>		<i>9-30'</i>	Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...	<i>34-99 M.</i>					Deduction = <i>-496</i>
" forward ...	<i>✓</i>					
Total ...	<i>48-05'</i>	<i>65-18'</i>			<i>64-10'</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<i>1092</i>	<i>1</i>	<i>1092</i>	<i>1168</i>	<i>1168</i>	<i>1168</i>	<i>1</i>	<i>1168</i>	<i>1168</i>	Mean actual sheer aft = <i>Excess</i>
1/4 L from A.P. ...	<i>485</i>	<i>4</i>	<i>1940</i>	<i>522</i>	<i>522</i>	<i>522</i>	<i>4</i>	<i>2088</i>	<i>2088</i>	Mean actual sheer forward = <i>Excess</i>
2/4 L " ...	<i>121</i>	<i>2</i>	<i>242</i>	<i>130</i>	<i>130</i>	<i>130</i>	<i>2</i>	<i>260</i>	<i>260</i>	Mean standard sheer aft =
Amidships ...		<i>4</i>					<i>4</i>			Mean standard sheer forward =
3/4 L from F.P. ...	<i>243</i>	<i>2</i>	<i>486</i>	<i>251</i>	<i>251</i>	<i>251</i>	<i>2</i>	<i>502</i>	<i>502</i>	Length of enclosed superstructure forward of amidships = <i>136</i>
1/4 L " ...	<i>970</i>	<i>4</i>	<i>3880</i>	<i>1003</i>	<i>1003</i>	<i>1003</i>	<i>4</i>	<i>4012</i>	<i>4012</i>	" " aft of " = <i>127</i>
F.P. ...	<i>2184</i>	<i>1</i>	<i>2184</i>	<i>2337</i>	<i>2337</i>	<i>2337</i>	<i>1</i>	<i>2337</i>	<i>2337</i>	
Total ...			<i>9824</i>					<i>10367</i>	<i>10367</i>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{543}{18} (.75 - .2388) = -15$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{779+68}{1.36} = \frac{1459}{1.36}$
Depth to Freeboard Deck = <i>7-528</i>	$\Delta =$	Depth Correction ... <i>174</i>
Summer freeboard = <i>1-052</i>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <i>496</i>
Moulded draught (d) = <i>6-476</i>	T =	Sheer correction ... <i>15</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = <i>135 m</i>	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... <i>1</i>
Addition for Winter North Atlantic Freeboard (if required) =	<i>135 m</i>	Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc ...
		<i>174 512 - 338</i>
		Summer Freeboard = <i>1052</i>

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

Tropical Fresh Water Line above Centre of Disc	<i>242 m = 9-50'</i>	Tropical Fresh Water Freeboard ...	<i>793 = 31-25'</i>
Fresh Water Line	<i>140 = 5-50'</i>	Fresh Water	<i>895 = 35-25'</i>
Tropical Line	<i>102 = 4-00'</i>	Tropical	<i>933 = 36-75'</i>
Winter Line below	<i>102 = 4-00'</i>	Winter	<i>1137 = 44-75'</i>
Winter North Atlantic Line	<i>✓</i>	Winter North Atlantic	<i>✓</i>

MARKING FOR MARKING FOR RECEIVED 10/9/41

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	FORE DECK			POOP			FORWARD WELL			POOP
	Nº1	Nº2	Nº3	Nº4	Nº5	Nº6	Nº7	Nº8	Nº9	
Dimensions of Hatchway	7'11" x 8'0"	3'9" x 2'10"	5'6" x 3'6"	1'6" x 1'6"	1'9" x 1'9"	3'0" x 3'0"	2'3" x 2'9"	2'3" x 2'9"	2'6" x 3'0"	2'0" x 2'0"
COAMINGS	Height above Deck	28"	8"	do	do	9"	16"	31"	8"	18"
	Thickness	5"	5"	do	do	4 1/4"	4 1/4"	5"	5"	4 1/4"
	Stiffeners	do	do	do	do	4 1/4"	4 1/4"	5"	5"	4 1/4"
	Brackets, Stays	None	None	do	do	None	None	None	None	None
HATCH BEAMS	Number	3	1	do	do	do	do	do	do	do
	Spacing	3'-11 1/2"	do	do	do	do	do	do	do	do
	Scantling and Sketch	Angle 4" x 3" x 3/8"	do	do	do	do	do	do	do	do
FORE AND AFTERS	Bearing Surface	3"	do	do	do	do	do	do	do	do
	Number	do	do	do	do	do	do	do	do	do
	Spacing	do	do	do	do	do	do	do	do	do
HATCH COVERS	Material	W. Pine	5/8" Plate	do	do	do	W. Pine	1/2" plate	do	W. Pine
	Thickness	2 1/2"	do	do	do	do	2 1/2"	do	do	2 1/2"
	How fitted	3 x 2"	secured by 8-1"	do	do	do	3 x 2"	secured by 8-1"	do	3 x 2"
Spacing of Cleats	Number of Tarpaulins	24"	hinged	do	do	do	2 ea. side	hinged	do	2 ea. side
		2	bolts	do	do	do	2	bolts	do	2

Particulars of fiddle, funnel and ventilator coamings:— All openings on fiddle top are fitted with hinged steel covers and the bulkheads have efficient coamings. Engine room skylight is of steel & is situated on the trunk with hinged steel covers having strong glass lights. Funnel coaming 24" high above fiddle top.

Particulars of Flush Bunker Scuttles:— None

Particulars of Companionways:— 2 Steel companionways on Bridge Deck. 8'6" x 4'6" x 6'9" high with hinged steel door opening aft secured with lock & handle capable of being manipulated from both sides, sill 12". These companionways trunked thro' Bridge space & have only a door in starboard trunk 5'0" x 2'0" with 12" sill. 1 Steel companionway on Fore Deck 8'0" x 3'6" x 6'3" high with 1 1/2" wood door opening aft, sill 19", secured by lock & handle.

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

Forecastle Deck: 6 mushroom type 6" dia x 1/4" x 30" high. Forward Well: 2 1/2" 10" dia x 3/8" x 36" high. Bridge Deck: 7-8" dia x 1/4" x 19" high. Poop Deck: 9-6" mushroom type x 1/4" x 30" high. 2-8" dia x 3/8" x 30" high. 1-8" dia x 1/4" x 21" high. Mushroom vents have screw down covers & remainder are provided with wood plugs & canvas covers.

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

Forecastle Deck: 2-6" dia x 12" high. Forward Well: 2-2 1/2" dia x 3 1/4" high. Fore Trunk: 4-3" dia with cock x 21" high from cargo tanks. Bridge Deck: 6-3" dia with cock x 21" high from cargo tanks. Poop Deck: 1-3" x 6" high. After Well: 3 1/2" 2 1/2" dia x 34" high. After Trunk: 2-6" dia x 16" high from OF. Bunks. 3-3" dia x 6" high at side.

NOTE: All air pipes of gorse-neck type, those from oil spaces fitted with gauze wire and remainder are fitted with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:— Each O.T. Hatch Nºs 2, 3, 4, 5 & 6 have 3" dia air pipe, with cock, 18" high.

None.

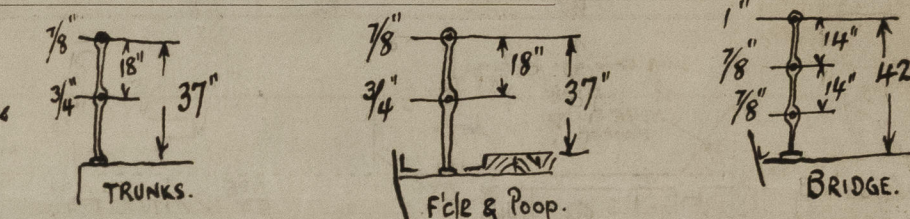
Particulars of Scuppers and Sanitary Discharge Pipes:— Scuppers: 2 ea. side of forward & after wells discharging over deck thus 1 ea. side of fore & after wells & 2 ea. side of Bridge deck discharging just below deck thus

Sanitary Discharges:— 1 from Poop space discharging s.s. just below the freeboard deck. 1 from accom? on Bridge Deck discharging s.s. above freeboard dk. in Brid. space. 1 from after end of Bridge space p.s. and 1 p. & 1 s. from Forecastle space discharging above freeboard deck. All are fitted with storm valves.

Particulars of Side Scuttles:— Side scuttles are situated 20" below poop, bridge & forecastle decks and after trunk forming part of casing, fitted with efficient inside deadlights permanently attached in their proper positions.

Particulars of Guard Rails:—

Efficient guard rails are fitted on all exposed portions of Poop, Bridge & Forecastle trunk decks.



Particulars of Gangways, Lifelines, etc.:— Trunk top forms efficient fore cast gangway.

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	90.43'	45"	4.0' x 1.4 1/2' = 3.0' x 1.0'	3.5	27.5 sq ft	28 sq ft
Forward Well	82'	45"	4.0' x 1.4 1/2' = 3.0' x 1.0'	3.5	27.5 sq ft	26 sq ft

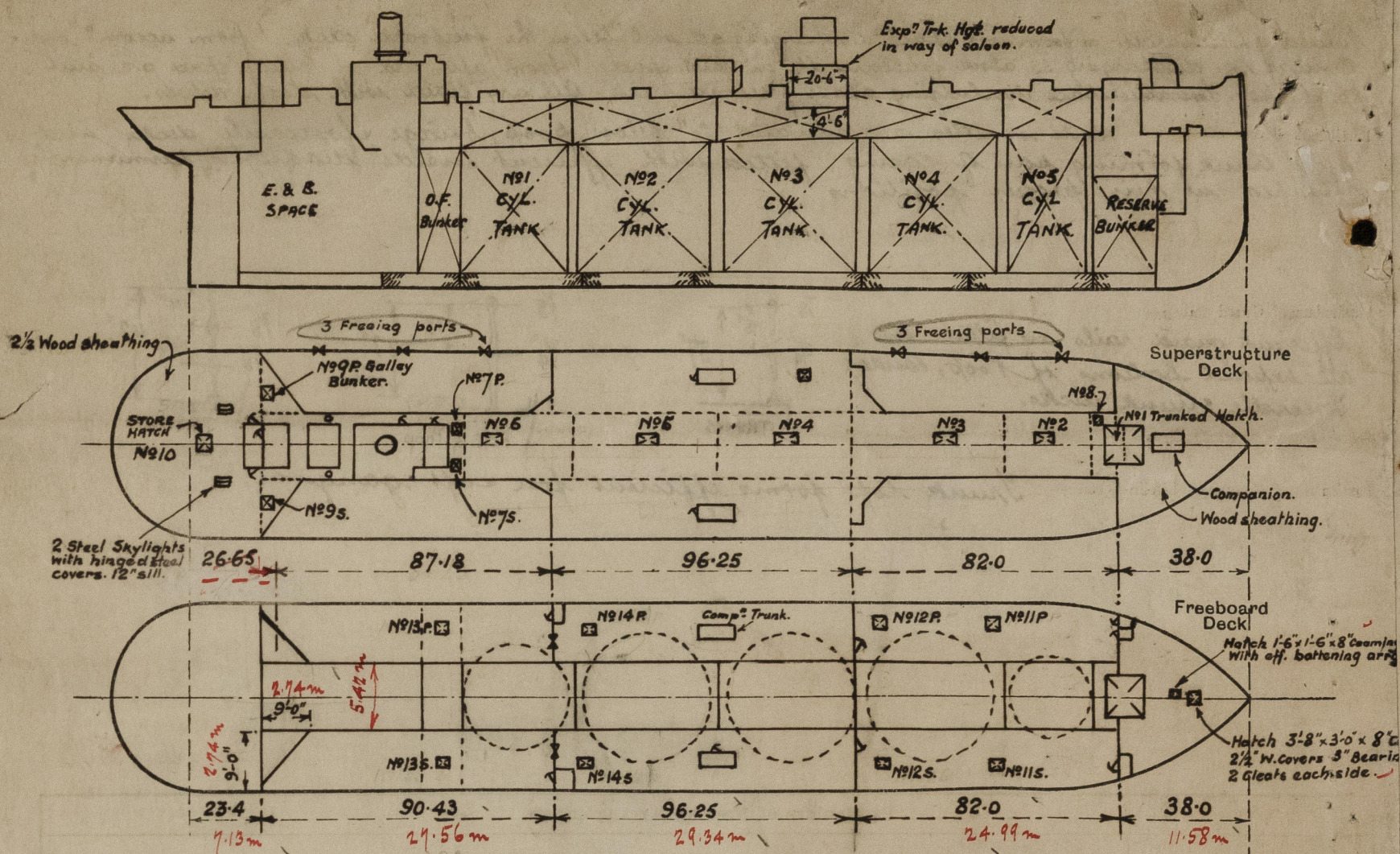
State position of each freeing port:— After Well:— } Edge 14" above deck. For F.A. positions see sketch. (F. and A. position and height above deck edge) } Forward Well:— }
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 4 vertical 5/8" bars each port.
 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	7/16"	7/16"	8" x 3 1/2" x 1/2" BA	30"	Brackets top & bottom	No openings	✓	
Raised Quarter Deck Bulkhead	✓					2 openings 5'6" x 2'0"	20"	
Bridge, After Bulkhead	3/8"	1/4"	3" x 3" x 3/8"	30"	None	2 openings 3'9" x 6'4"	20"	
Bridge, Forward Bulkhead	1/16"	3/8"	8" x 3 1/2" x 1/2" BA	30"	Brackets top & bottom	2 openings 3'1" x 5'4"	20"	
Forecastle Bulkhead	3/8"	5/16"	3" x 3" x 3/8" BA	30"	None	3 openings 5'0" x 2'0"	19"	
Trunk, Aft	7/16"	7/16"	8" x 3 1/2" x 1/2" BA	35"	Brackets at top & bottom	No openings	✓	7'-0"
Trunk, Forward	7/16"	7/16"	8" x 3 1/2" x 1/2" BA	35"	do	No openings	✓	7'-0"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	7/16"	7/16"	6" x 3" x 1/16" BA	35"	do	No openings	✓	7'-0"
Exposed Machinery Casings on Superstructure Decks	3/8"	3/8"	6" x 3" x 7/16" BA	35"	Brackets at top	2 openings 5'0" x 2'0"	18"	6'-9"
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	No openings	✓
Raised Quarter Deck Bulkhead	2 openings closed by storm boards full height in riveted channels.	✓
Bridge, After Bulkhead	2 openings closed by hinged steel doors, 1 steel 1 wood, secured by lock & handle.	✓
Bridge, Forward Bulkhead	Strong hinged steel doors secured by dogs with 3/4" bolts, 3 each side, 2 top & 2 bottom.	✓
Forecastle Bulkhead	Strong hinged wood doors secured by lock & handle.	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	No openings	✓
Exposed Machinery Casings on Superstructure Decks	2 openings closed by hinged steel door in halves, secured by lock & handle.	✓
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:—



Note: Vessel surveyed afloat but is now undergoing the Special Survey N°3 and will be dry docked before leaving Bilbao when the sheer heights can be checked.

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

23.46 Trunks Ford $24.99 \times \frac{5.42}{14.57} = 9.30$

" aft $24.82 \times \frac{5.42}{14.57} = 9.23$

$2.74 \times \frac{8.16}{14.57} = 1.53$

$10.76 \times 90 = 9.68$

Builder's name and yard number

Blyde Shipbuilding & Eng. Co. Ltd. Port Glasgow.

Names of sister ships

Owners

Com. Compañia de Navegacion.

Fee

£ Pts. 750/-

Received by me



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