

# Lloyd's Register of Shipping.

 Index No. 25486  
 (For London Office only).

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **IN B. DE GOLIA.** Official Number **215654** Nationality and Port of Registry **San Francisco California** Gross Tonnage **3322** Date of Build **1917**  
 Port of Survey **Mobile, Ala.**  
 Date of Survey **19th April 1940**  
 Surveyor's Signature **W. H. Grawant**  
 Particulars of Classification **+100 A1. carrying petroleum in bulk**  
 Dimensions: Length **291.2** Breadth **47.00** Depth **28'-1 1/2" (28.12)**  
 Displacement at moulded draught = 85 per cent. of moulded depth **(23.9) 7265** tons  
 Coefficient of fineness for use with Tables **.775**

**Depth for Freeboard (D).**  
 depth ... **28.12**  
 plate ... **.04**  
 on exposed deck **✓**  
 $(\frac{S}{L}) =$   
 Depth for Freeboard (D) = **28.16**  
**Depth correction.**  
 (a) Where D is greater than Table depth  
 $(D - \text{Table depth}) R = (28.16 - 19.48) \times 1.148 = +19.51$   
 (b) Where D is less than Table depth (if allowed)  
 (Table depth - D) R = **✓**  
 If restricted by superstructures **✓**  
**Round of Beam correction.**  
 Moulded Breadth (B) **47.00**  
 Standard Round of Beam =  $\frac{B \times 12}{50} = 11.28$   
 Ship's Round of Beam = **11.75**  
 Difference **Excess .47**  
 Restricted to  
 Correction =  $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.47}{4} \times .4584 = -.05$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
closed ...	61.83	61.83	7.5	✓	61.83
erhang ...					
nclosed ...					
erhang ...					
nclosed ...					
erhang aft ...					
erhang forward ...					
osed ...	26.00	26.00	7.5	✓	26.00
hang ...					
ward ...	138.44	70.46	2.0	2.0/6.422	21.94
opening aft ...					
forward ...					
total ...	87.83	158.29			109.77

Standard Height of Superstructure **6.422'**  
 " " R.Q.D. **✓**  
 Deduction for complete superstructure **34.81"**  
 Percentage covered  $\frac{S}{L} = 30.06$   
 " "  $\frac{S_1}{L} = 54.16$   
 " "  $\frac{E}{L} = 37.56$   
 Percentage from Table, Line A. Tanker **28.56**  
 (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 =  $34.81 \times .2856 = -9.94$

### SHEER CORRECTION.

	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	39.22	1		39.22	11.5	11.50	1		11.50
P. ...	17.45	4		69.80	5.5	5.50	4		22.00
...	4.31	2		8.62	-7.5	-7.5	2		-1.50
...		4					4		
...	8.63	2		17.26	14.00	8.63	2		17.26
...	34.91	4		139.64	38.50	34.91	4		139.64
...	78.44	1		78.44	70.50	78.44	1		78.44
...				352.98					278.34

Mean actual sheer aft = **Deficient**  
 Mean standard sheer aft = **and less than 50%**  
 Mean actual sheer forward = **Excess.**  
 Mean standard sheer forward = **Excess.**  
 Length of enclosed superstructure forward of amidships = **Tanker.**  
 Sheer aft: **Standard**  
 39.22 1 39.22  
 17.45 4 70.80  
 4.31 2 8.62  
 104.50  
 59.97 = +1.49  
 aft of " = **Actual**  
 11.50 1 11.50  
 5.50 4 22.00  
 -7.5 2 -15.00  
 36.75

Correction = Difference between sums of products  $\frac{74.64 - 150.3}{18} = 74.64 - 150.3$   
 18  
 59.97 = +1.49  
 If limited to maximum allowance of 1 1/2 ins. per 100 ft.

on for Tropical Freeboard.  
 for Winter and Winter North  
 ic Freeboard.

Depth to Freeboard Deck = **28.16**  
 Summer freeboard = **4.52**  
 Moulded draught (d) = **23.64**  
 Freeboard =  $\frac{d}{4}$  inches = **5.91 - 6.0"**  
 for Winter North Atlantic Freeboard (if  
 ired) = **5.91 + 1.92 = 8.83 = 8 3/4"**

**Deduction for Fresh Water.**  
 Displacement in salt water at summer load water line  
 $\Delta = 7340$   
 Tons per inch immersion at summer load water line  
 $T = 29.1$   
 Deduction =  $\frac{\Delta}{40T}$  inches  
 = **6.31**  
 = **6 1/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **775 + 68 = 1455/1.36**  
 1.36  
 + -  
 Depth Correction ... **19.51**  
 Deduction for superstructures ... **9.94**  
 Sheer correction ... **2.49**  
 Round of Beam correction ... **.05**  
 Correction for Thickness of Deck amidships  
 Other corrections, scantlings, etc. ...  
 12.00 9.94 + 12.01  
 Summer Freeboard = **54.31**

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

Tropical Fresh Water Line above Centre of Disc ...	12 1/4"	Tropical Fresh Water Freeboard ...	3'-6"
Fresh Water Line " " ...	6 1/4"	Fresh Water " " ...	4'-0"
Tropical Line " " ...	6"	Tropical " " ...	4'-0 1/4"
Winter Line below " " ...	6"	Winter " " ...	5'-0 1/4"
Winter North Atlantic Line " " ...	8 3/4"	Winter North Atlantic " " ...	5'-3"