

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having *Ice Bridge R.R. 01: Budget House on Br Deck*

Port of Survey *Newcastle*

Date of Survey *7-8 April 1932*

Name of Surveyor *J. B. Webb*

Particulars of Classification *1100 A1.*

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>GLANRHYD</i>	<i>British London</i>	<i>147638</i>	<i>1525</i>	<i>1924</i>

Moulded Dimensions: Length *245* ✓ Breadth *38.5* ✓ Depth *18.0* *6 up 54* ✓  
Moulded displacement at moulded draught = 85 per cent. of moulded depth *3117* tons  
Coefficient of fineness for use with Tables *.756* ✓

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <i>18.00</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(18.04 - 16.33) 1.884 = +3.22</i>	Moulded Breadth (B) <i>38.5</i> Standard Round of Beam = $\frac{B \times 12}{50} = 9.24$ Ship's Round of Beam = <i>9.2</i> ✓ Difference <i>.26</i> Restricted to <i>.3245</i> Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.26}{4} \times (1 - .6755) = -.02$
Stringer plate ... .. <i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures ✓	
Depth for Freeboard (D) = <i>18.04</i> ✓		

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poep enclosed ... ..					
" overhang ... ..					
R.Q.D. enclosed ... ..	<i>95.77</i>	<i>95.77</i>	<i>6.0</i>	✓	<i>95.77</i>
" overhang ... ..	<i>54.0</i>	<i>51.00</i>	<i>6.0</i>	✓	<i>51.00</i>
Bridge enclosed ... ..	<i>47.0</i>		<i>7.25</i>	✓	<i>18.72</i>
" overhang aft ... ..	<i>18.72</i>	<i>18.72</i>	<i>7.25</i>	✓	
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" forward ... ..					
Total ... ..	<i>168.49</i>	<i>165.49</i>			<i>165.49</i>

Standard Height of Superstructure	<i>6.0</i>
" " R.Q.D.	<i>3.97</i>
Deduction for complete superstructure	<i>30.5</i>
Percentage covered $\frac{S}{L} =$	<i>68.77%</i>
" " $\frac{S_1}{L} =$	<i>67.55%</i>
" " $\frac{E}{L} =$	<i>67.55%</i>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<i>58.83%</i>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	✓
Interpolation for bridge less than .2L (if required)	✓
Deduction = $30.5 \times .5883 =$	<i>- 17.94"</i>

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	34.50	1	34.50	39	39.00	1	39.00		
$\frac{1}{2}$ L from A.P. ... ..	15.35	4	61.40	17.54	17.54	4	70.16		
$\frac{3}{4}$ L " ... ..	3.79	2	7.58	4.35	4.35	2	18.70		
Amidships ... ..	✓	4	✓	-	✓	4	✓		
$\frac{3}{4}$ L from F.P. ... ..	7.59	2	15.18	8.76	8.76	2	17.52		
$\frac{1}{2}$ L " ... ..	30.70	4	122.80	35.15	35.15	4	140.60		
F.P. ... ..	69.00	1	69.00	78.	78.00	1	78.00		
Total ... ..			310.46				353.98		

Correction =  $\frac{\text{Difference between sums of products}}{18}$ 

$$(.75 - \frac{S}{2L}) = \frac{43.52}{18} \times (.75 - .3438) = -.98$$

If limited on account of midship superstructure.

Mean actual sheer aft = *Excess*  
Mean standard sheer aftMean actual sheer forward = *Excess*  
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = *.111*" " aft of " = *.50*

*Sheer increased aft by virtue of increase of raised quarter, etc. Hgt 6.0 - 3.97 = 2.03*  
*= 24.36*

$$.4062 \times (-.98) = -.98$$

If limited to maximum allowance of 1½ ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *18.04*  
Summer freeboard = *1.44*  
Moulded draught (d) = *16.60*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *4.15 = 4 1/4*Addition for Winter North Atlantic Freeboard (if required) = *2*

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$  *3408*

Tons per inch immersion at summer load water line

 $T =$  *18.73*Deduction =  $\frac{\Delta}{40T}$  inches $=$  *4.55* $\approx$  *4 1/2*

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

Correction for coefficient  $\frac{.756 + .68}{1.36} = \frac{1.436}{1.36}$ 

	+	-
Depth Correction ... ..	<i>3.22</i>	✓
Deduction for superstructures ... ..	✓	<i>17.94</i>
Sheer correction ... ..	✓	<i>.98</i>
Round of Beam correction ... ..	✓	<i>.02</i>
Correction for Thickness of Deck amidships ... ..	✓	✓
Other corrections, scantlings, etc. ... ..	✓	✓
	<i>3.22</i>	<i>18.94</i>

Summer Freeboard = *17.33*

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

Tropical Fresh Water Line above Centre of Disc	<i>8 3/4</i>
Fresh Water Line " "	<i>4 1/2</i>
Tropical Line " "	<i>4 1/4</i>
Winter Line below " "	<i>4 1/4</i>
Winter North Atlantic Line " "	<i>6 1/4</i>

Tropical Fresh Water Freeboard ... ..	<i>0' - 8 3/4"</i>
Fresh Water " " ... ..	<i>1' - 0 3/4"</i>
Tropical " " ... ..	<i>1' - 1 1/4"</i>
Winter " " ... ..	<i>1' - 9 1/2"</i>
Winter North Atlantic " " ... ..	<i>1' - 11 1/2"</i>

1906 Freeboard corrected



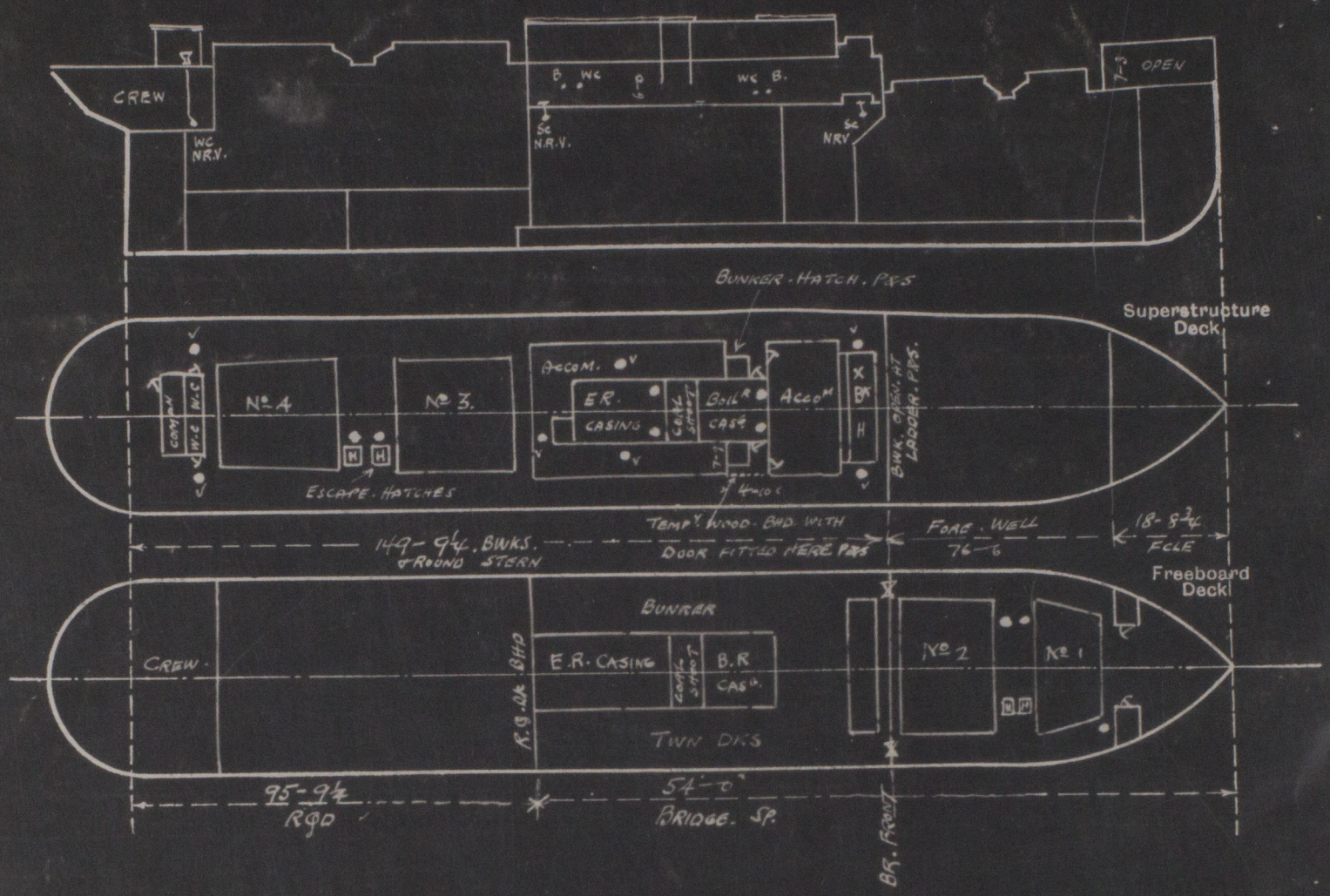
Slavrhud

State position of each freeing port ... After Well:— 29-0 ft. ft. transverse, then 31-26' spacing, 5 3/4" above deck  
(F. and A. position and height above deck edge) Forward Well:— 13-6 ft. from Bow, 12-3 ft. from Stern, then 14' spacing. Two center ones 5' apart  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Four well 2 ft. and 6 ft. high; bars: one has 5 1/2" rail 10 1/2" up.  
"Steps" in middle height, 1 has 2 bars 2 ft. and 2 ft. high. After well 3 after one 1 ft. high; rest permanently closed; Port one 2 ft. and 19" c.  
Additional area where sheer is less than standard.



*Stanhope*

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 *Messrs Vickers Ltd Barrow No 607. 45.*

Names of sister ships ✓

Owners *Harris Bros & Co.*

Fee £ *9 : 7 : -* Received by me

APPLIED FOR 12 APR 1932



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