

31936.

Rpt. C.1

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*
Port of Survey *Newcastle*Date of Survey *18th Apr. 1932*Name of Surveyor *P. W. Webster*Particulars of Classification *+100 A1*
 (Type of Superstructures.)
 Ship's Name *GREATHOPE* Nationality and Port of Registry *British Newcastle* Official Number *149415* Gross Tonnage *2328*
2247 Date of Build *1926/9*
 Moulded Dimensions: Length *308.5* Breadth *41.67* Depth *22.04*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *5139* tons
 Coefficient of fineness for use with Tables *.747*

 Depth for Freeboard (D)
 Moulded depth *22.04*
 Stringer plate *.03*
 Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = *22.07*

 Depth correction
 (a) Where D is greater than Table depth
 (D-Table depth) R =
 $(22.07 - 20.56) 2.372 = + 3.58$
 (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) *41.67*
 Standard Round of Beam = $\frac{B \times 12}{50} =$ *9.99*
 Ship's Round of Beam = *10.0*
 Difference *.01*
 Restricted to
 Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ *nil*

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>22.00</i>	<i>22.00</i>	<i>7-2½</i>		<i>22.00</i>
" overhang	<i>.16</i>	<i>.08</i>			<i>.08</i>
R.Q.D. enclosed					
" overhang					
Bridge enclosed	<i>62.83</i>	<i>62.83</i>	<i>7-0</i>		<i>62.83</i>
" overhang aft	<i>2.66</i>	<i>1.99</i>			<i>1.99</i>
" overhang forward	<i>1.50</i>	<i>.75</i>			<i>.75</i>
Fore enclosed	<i>26.00</i>	<i>26.00</i>	<i>7-0</i>		<i>26.00</i>
" overhang	<i>3.50</i>	<i>3.50</i>			<i>3.50</i>
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<i>118.65</i>	<i>117.15</i>			<i>117.15</i>

 Standard Height of Superstructure *6.585*
 " " R.Q.D. _____
 Deduction for complete superstructure *35.90*
 Percentage covered $\frac{S}{L} =$ *38.46*
 " " $\frac{S_1}{L} =$ *37.97*
 " " $\frac{E}{L} =$ *37.97*
 Percentage from Table, Line A.
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. *25.77*
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than 2L (if required)
 Deduction = $35.90 \times .2577 =$ *9.25*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<i>40.85</i>	<i>1</i>		<i>40.85</i>	<i>48.0</i>	<i>48.0</i>	<i>1</i>		<i>48.0</i>
$\frac{1}{8}$ L from A.P.	<i>18.18</i>	<i>4</i>		<i>72.72</i>	<i>20.83</i>	<i>20.85</i>	<i>4</i>		<i>83.40</i>
$\frac{3}{8}$ L "	<i>4.49</i>	<i>2</i>		<i>8.98</i>	<i>5.20</i>	<i>5.21</i>	<i>2</i>		<i>10.42</i>
Amidships		<i>4</i>		<i>0</i>			<i>4</i>		<i>0</i>
$\frac{5}{8}$ L from F.P.	<i>8.99</i>	<i>2</i>		<i>17.98</i>	<i>10.40</i>	<i>10.42</i>	<i>2</i>		<i>20.84</i>
$\frac{7}{8}$ L "	<i>36.35</i>	<i>4</i>		<i>145.40</i>	<i>41.71</i>	<i>41.71</i>	<i>4</i>		<i>166.84</i>
F.P.	<i>81.70</i>	<i>1</i>		<i>81.70</i>	<i>96.0</i>	<i>96.0</i>	<i>1</i>		<i>96.0</i>
Total				<i>367.63</i>					<i>425.50</i>

 Mean actual sheer aft = *Even*
 Mean standard sheer aft =

 Mean actual sheer forward = *Even*
 Mean standard sheer forward =

 Length of enclosed superstructure forward of amidships = *1.01*
 " " aft of " = *1.03*

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{57.87}{18} \left(.75 - \frac{.1923}{.5577} \right) =$ *-1.79*

If limited on account of midship superstructure.

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 = *22.07*
 Summer freeboard = *3.35*
 Moulded draught (d) = *18.72*

 Deduction for Tropical freeboard and addition for
 Winter freeboard = $\frac{d}{4}$ inches = *4.68* = *4¾*
 Addition for Winter North Atlantic Freeboard (if required) = *2"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ *5177*
 Tons per inch immersion at summer load water line
T = *25.3*Deduction = $\frac{\Delta}{40T}$ inches= *5.1*= *5"*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1.427}{1.36}$

	+	-
Depth Correction	<i>3.58</i>	
Deduction for superstructures		<i>9.25</i>
Sheer correction		<i>1.79</i>
Round of Beam correction		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	<i>3.58</i>	<i>11.04</i>

Summer Freeboard = *40.30*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<i>9¾"</i>	Tropical Fresh Water Freeboard	<i>2 - 6½"</i>
Fresh Water Line " "	<i>5"</i>	Fresh Water " "	<i>2 - 11¼"</i>
Tropical Line " "	<i>4¾"</i>	Tropical " "	<i>2 - 11½"</i>
Winter Line below " "	<i>4¾"</i>	Winter " "	<i>3 - 9"</i>
Winter North Atlantic Line " "	<i>6¾"</i>	Winter North Atlantic " "	<i>3 - 11"</i>

