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32121  
Dalewood  
Wychwood

Rpt. C.11 (Comp.).

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JUL 30 1937.

Index. No. 353628  
(For London Office only).

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

N<sup>o</sup> 32156

Ship's Name <b>GOODWOOD.</b>	Official Number <b>165553</b>	Nationality and Port of Registry <b>BRITISH LONDON</b>	Gross Tonnage <b>2796</b>	Date of Build <b>1937.</b>	Port of Survey <b>Sunderland</b>
Moulded Dimensions: Length <b>305.83</b> Breadth <b>44.25</b> Depth <b>21.50</b>				Date of Survey <b>Whitby Building</b>	Surveyor's Signature <i>W. S. Hulls</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>5465</b> tons				Particulars of Classification <b>+100A1</b>	
Coefficient of fineness for use with Tables <b>.7749</b>				<b>class contemplated</b>	

<b>Depth for Freeboard (D).</b>	<b>Depth correction.</b>	<b>Round of Beam correction.</b>
Moulded depth ... <b>21.50</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>(21.58-20.38) 2.353 = +2.82</b>	Moulded Breadth (B) <b>44.25</b>
Stringer plate ... <b>R.Q.D. 90 .08</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>1.20</b>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{44.25 \times 12}{50} = 10.62$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <b>11"</b>
Depth for Freeboard (D) = <b>21.58</b>		Difference <b>.38 excess</b>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.38}{4} \times .3138 = -.03$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...	<b>176.75</b>	<b>176.67</b>	<b>4.75</b>		<b>176.75</b>
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward					
F'cle enclosed ...	<b>31.83</b>	<b>31.83</b>	<b>7.25 + .25</b>		<b>31.83</b>
" overhang ...	<b>2.50</b>	<b>2.50</b>	<b>1.25</b>		<b>1.25</b>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	<b>211.08</b>	<b>209.83</b>			<b>209.83</b>

Standard Height of Superstructure <b>6.558</b>	
" " R.Q.D. <b>4.745</b>	
Deduction for complete superstructure <b>35.72</b>	
Percentage covered $\frac{S}{L} = \frac{211.08}{279.6} = 69.02$	
" " $\frac{S_1}{L} = \frac{209.83}{279.6} = 68.62$	
" " $\frac{E}{L} = \frac{209.83}{279.6} = 68.62$	
Percentage from Table, Line A. <b>60.65</b>	
(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 = <b>35.72 x .6065 = 21.66</b>	

### U.O.R. R.Q.D. parallel SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<b>40.58</b>	<b>1</b>		<b>40.58</b>	<b>45.00</b>	<b>45.06</b>	<b>1</b>		<b>45.06</b>
1/4 L from A.P. ...	<b>18.055</b>	<b>4</b>		<b>72.22</b>	<b>20.02</b>	<b>20.05</b>	<b>4</b>		<b>80.20</b>
1/2 L " ...	<b>4.465</b>	<b>2</b>		<b>8.93</b>	<b>5.00</b>	<b>4.96</b>	<b>2</b>		<b>9.92</b>
Amidships ...		<b>4</b>			<b>0</b>		<b>4</b>		
3/4 L from F.P. ...	<b>8.93</b>	<b>2</b>		<b>17.86</b>	<b>10.46</b>	<b>10.46</b>	<b>2</b>		<b>20.92</b>
1/4 L " ...	<b>36.11</b>	<b>4</b>		<b>144.44</b>	<b>41.83</b>	<b>41.83</b>	<b>4</b>		<b>167.32</b>
F.P. ...	<b>81.17</b>	<b>1</b>		<b>81.17</b>	<b>94.00</b>	<b>94.00</b>	<b>1</b>		<b>94.00</b>
Total ...				<b>365.20</b>					<b>417.42</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{S}{2L} \right) = \frac{52.22}{18} \left( \frac{.75}{2 \times 279.6} \right) = -1.17$

If limited on account of midship superstructure.  $\frac{.178}{.200} \times 1.17 = 1.04$

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 = **.078L**  
" " aft of " = **.500L**

Actual height of Raised Quarter Deck **4.75**  
Standard " " " " **4.745**  
Diff = **.005**

<b>Deduction for Tropical Freeboard.</b>	<b>Deduction for Fresh Water.</b>	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b>
<b>Addition for Winter and Winter North Atlantic Freeboard.</b>	Displacement in salt water at summer load water line $\Delta = 5830$	Correction for coefficient $\frac{.774 + .68}{1.36} = \frac{1.454}{1.36}$
<b>RAISED QUARTER</b>	Tons per inch immersion at summer load water line $T = 27.25$	Depth Correction ... <b>2.82</b>
Depth to Freeboard-Deck = <b>26.33</b>	Deduction = $\frac{\Delta}{40T}$ inches = <b>5.35</b>	Deduction for superstructures ... <b>21.66</b>
Summer freeboard = <b>7.08</b>		Sheer correction ... <b>1.04</b>
Moulded draught (d) = <b>19.25</b>		Round of Beam correction ... <b>.03</b>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>4.81 = 4 3/4</b>		Correction for Thickness of Deck amidships <b>HEIGHT OF RAISED QUARTER DECK.</b>
Addition for Winter North Atlantic Freeboard (if required) = <b>6 3/4</b>		Other corrections, scantlings, etc. ... <b>57.00</b>
		<b>59.82</b>
		Summer Freeboard = <b>85.04</b>

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

Tropical Fresh Water Line above Centre of Disc ... <b>10"</b>	Tropical Fresh Water Freeboard ... <b>6' 3"</b>
Fresh Water Line " " ... <b>5 1/4"</b>	Fresh Water " " ... <b>6' 7 3/4"</b>
Tropical Line " " ... <b>4 3/4"</b>	Tropical " " ... <b>6' 8 1/4"</b>
Winter Line below " " ... <b>4 3/4"</b>	Winter " " ... <b>7' 5 3/4"</b>
Winter North Atlantic Line " " ... <b>6 3/4"</b>	Winter North Atlantic " " ... <b>7' 7 3/4"</b>

14 AUG 1937

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Actual displacement at actual draft  $19' 3\frac{1}{4}" = 5790 \text{ tons}$   
 Tons per inch = 27.25

Trade of ship

Names of sister ships

Builder's name and yard number

Messrs S.P. Austin & Son Ltd N<sup>o</sup> 343.

Owners

W. France Fensick & Co. Ltd.

Fee £

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Will be charged on completion



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