

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

20 DEC 1952

Ship's Name <i>"Hogch Glyper"</i> <i>Howaldtswake & Kjel</i> <i>Yard No 960</i>	Official Number	Nationality and Port of Registry <i>Norwegian</i> <i>Oslo</i>	Gross Tonnage <i>9477</i> 9700	Date of Build <i>1953</i>	Port of Survey <i>Kiel</i>
Moulded Dimensions: Length <i>459.906'</i> <small>from centre of moulded keel</small> Breadth <i>62.993'</i> Depth <i>42.98'</i>					Date of Survey <i>13TH December 1952</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>21030</i> tons					Surveyor's Signature <i>George Mohr</i>
Coefficient of fineness for use with Tables <i>.695</i>					Particulars of Classification <i>100 A1</i> <i>strengthened for navigation in ice.</i>

DEPTH FOR FREEBOARD (D). Moulded depth ... <i>42.98'</i> ... <i>42.98</i> Stringer plate <i>(19.5mm)</i> ... <i>.064'</i> ... <i>.06</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>43.04</i>	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = <i>(43.04 - 30.64) 3 = + 37.14</i> (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) <i>62.993'</i> Standard Round of Beam = $\frac{B \times 12}{50} = 15.12$ Ship's Round of Beam <i>14.961"</i> = <i>14.96</i> Difference <i>.16</i> Restricted to Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S}{L} \right) = \frac{.16}{4} \times \frac{22}{6913} = +.03$
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DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure <i>7.5'</i>
<i>See sketch.</i>	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	" " R.Q.D. <i>42'</i>
Poop enclosed ...	<i>43.831</i>	<i>42.111</i>	<i>8.00</i>	<i>—</i>	<i>44.255</i>	Deduction for complete superstructure <i>42'</i>
" overhang ...						Percentage covered $\frac{S}{L} =$
R.Q.D. enclosed ...						" $\frac{S_1}{L} =$ <i>30.87</i>
" overhang ...						" $\frac{E}{L} =$
Bridge enclosed ...						Percentage from Table, Line A. <i>15.74</i>
" overhang aft ...						(corrected for absence of forecastle (if required))
" overhang forward ...						Percentage from Table, Line B.
F'ele enclosed ...	<i>97.728</i>	<i>97.728</i>	<i>8.00</i>	<i>—</i>	<i>97.728</i>	(corrected for absence of forecastle (if required))
" overhang ...						Interpolation for bridge less than .2L (if required)
Trunk aft ...						Deduction = <i>42 x 15.74 = - 661</i>
" forward ...						
Tonnage opening aft ...	<i>none</i>					
" " forward ...	<i>141.579</i>	<i>.579</i>			<i>.579</i>	
Total ...	<i>141.983</i>	<i>141.983</i>			<i>141.983</i>	

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P. ...	<i>55.99</i>	<i>1</i>	<i>55.99</i>	<i>46.85"</i>	<i>46.85</i>	<i>1</i>	<i>46.85</i>
$\frac{1}{8}$ L from A.P. ...	<i>24.92</i>	<i>4</i>	<i>99.68</i>	<i>29.05"</i>	<i>29.05</i>	<i>4</i>	<i>116.20</i>
$\frac{2}{8}$ L " ...	<i>6.16</i>	<i>2</i>	<i>12.32</i>	<i>8.46"</i>	<i>8.46</i>	<i>2</i>	<i>16.92</i>
Amidships ...	<i>0</i>	<i>4</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>0</i>
$\frac{2}{8}$ L from F.P. ...	<i>12.32</i>	<i>2</i>	<i>24.64</i>	<i>14.57"</i>	<i>14.57</i>	<i>2</i>	<i>29.14</i>
$\frac{1}{8}$ L " ...	<i>49.83</i>	<i>4</i>	<i>199.32</i>	<i>52.17"</i>	<i>52.17</i>	<i>4</i>	<i>208.68</i>
F.P. ...	<i>111.98</i>	<i>1</i>	<i>111.98</i>	<i>117.33"</i>	<i>117.33</i>	<i>1</i>	<i>117.33</i>
Total ...			<i>503.93</i>				<i>535.12</i>
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{31.19}{18} \left(.75 - \frac{15.44}{42} \right) = -1.03$							
If limited on account of midship superstructure. YES <i>Nil</i> / 18 <i>5956</i> If limited to maximum allowance of 1 1/2 ins. per 100 ft.							

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <i>43.04</i> Summer freeboard = <i>13.79</i> Moulded draught (d) = <i>29.25</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>7.31 - 7 1/4</i> Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line <i>16340</i> $\Delta = 35\% \Delta = 41.422 \text{ tons}$ Tons per inch immersion at summer load water line <i>58.85</i> $T = 85\% D = 57.09 \text{ tons/inch}$ Deduction = $\frac{\Delta}{40 T}$ inches = <i>7.58</i> = <i>7 1/2</i> <i>P.T.O.</i>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.695 + .68}{1.36} = 1.375 / 1.36$ Depth Correction ... <i>374</i> Deduction for superstructures ... <i>6.61</i> Sheer correction ... <i>03</i> Round of Beam correction ... <i>03</i> Correction for Thickness of Deck amidships ... <i>4372</i> Other corrections, scantlings, etc. ... <i>8074</i> Summer Freeboard = <i>165.50</i>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood Steel, Deck -			
Tropical Fresh Water Line above Centre of Disc ...	<i>14.34</i>	<i>374</i>	Tropical Fresh Water Freeboard ... <i>13'-9 1/2"</i> <i>4204 mm</i>
Fresh Water Line " " ...	<i>7 1/2</i>	<i>190</i>	Fresh Water " " ... <i>12'-6 3/4"</i> <i>3820</i>
Tropical Line " " ...	<i>7 1/4</i>	<i>184</i>	Tropical " " ... <i>13'-2"</i> <i>4014</i>
Winter Line below " " ...	<i>7 1/4</i>	<i>184</i>	Winter " " ... <i>13'-2 1/4"</i> <i>4020</i>
Winter North Atlantic Line " " ...	<i>—</i>	<i>—</i>	Winter North Atlantic " " ... <i>14'-4 3/4"</i> <i>4388</i>

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.

Diagram of a trapezoidal channel cross-section. The top width is labeled "Forcastle deck". The bottom width is labeled "4 piers deck". The height is labeled "h. 155". The length of the bottom deck is labeled "97.728'". The right side is labeled "F.P."

International

Howaldtswerke A.G. Kiel Yard No 960

Kauf Höegh & Co, A/S Oslo.

List of plans forwarded for reference.

- 1) General arrangement.
- 2) Midships - Section
- 3) Profile & Decks
- 4) Stairway openings
- 5) Steel hatch covers
- 6) Hydrostatic curves.

Lloyd's Register
Foundation