

Preliminary

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>A. Hall & Co Lond No 716/20</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <u>172.75</u> Breadth <u>30.0</u> Depth <u>16.0</u>					Date of Survey <u>5-11-45</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>420</u> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <u>.68</u>					Particulars of Classification <u>(Over Transit (Continued))</u>

Depth for Freeboard (D). Moulded depth Stringer plate Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>16.10</u>	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = <u>+6.10</u> (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) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>-.13</u>
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DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed					<u>6.0</u>
.. overhang R.Q.D. <u>3.485</u>
R.Q.D. enclosed					Deduction for complete superstructure <u>23.27</u>
.. overhang					Percentage covered $\frac{S}{L} =$ <u>71.60</u>
Bridge enclosed... $\frac{S_1}{L} =$
.. overhang aft $\frac{E}{L} =$
.. overhang forward					Percentage from Table, Line A. <u>20.42</u>
F'cle enclosed					(corrected for absence of forecastle (if required))
.. overhang					Percentage from Table, Line B. <u>-</u>
Trunk aft					(corrected for absence of forecastle (if required))
.. forward					Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...					Deduction = <u>23.27 x .2042 = -4.75</u>
.. .. forward					
Total					

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual shear aft = <u>Even</u>
A.P.	<u>27.27</u>	1		<u>27.27</u>	<u>60.00</u>	<u>27.27</u>	1		<u>27.27</u>	Mean actual shear forward = <u>Deficient</u>
$\frac{1}{4}$ L from A.P.	<u>12.14</u>	4		<u>48.56</u>	<u>26.00</u>	<u>12.14</u>	4		<u>48.56</u>	Mean standard shear forward
$\frac{3}{8}$ L	<u>3.00</u>	2		<u>6.00</u>	<u>6.00</u>	<u>3.00</u>	2		<u>6.00</u>	Length of enclosed superstructure forward of amidships = <u>N.C.</u>
Amidships	<u>-</u>	4		<u>-</u>	<u>-</u>	<u>-</u>	4		<u>-</u> aft of .. =
$\frac{3}{8}$ L from F.P.	<u>6.00</u>	2		<u>12.00</u>	<u>7.00</u>	<u>7.00</u>	2		<u>14.00</u>	
$\frac{1}{4}$ L	<u>24.28</u>	4		<u>97.12</u>	<u>29.00</u>	<u>29.00</u>	4		<u>116.00</u>	
F.P.	<u>54.55</u>	1		<u>54.55</u>	<u>29.00</u>	<u>29.00</u>	1		<u>29.00</u>	
Total				<u>245.50</u>					<u>240.83</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4.67}{18} \left(.75 - \frac{358}{392} \right) = +.10$
 If limited on account of midship superstructure. 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 = Ft. Summer freeboard = Moulded draught (d) = Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40T}$ inches =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 10%; text-align: center;">+</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 30%;"></td> </tr> <tr> <td>Depth Correction</td> <td style="text-align: center;">6.10</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: center;">-</td> <td style="text-align: center;">4.75</td> <td></td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">-10</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Round of Beam correction <u>Light PR.</u></td> <td style="text-align: center;">-</td> <td style="text-align: center;">.13</td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: center;">14.16</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">20.36</td> <td style="text-align: center;">4.88</td> <td style="text-align: center;">+ 15.48</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Summer Freeboard = <u>15.19</u></td> </tr> </table>		+	-		Depth Correction	6.10	-		Deduction for superstructures	-	4.75		Sheer correction	-10	-		Round of Beam correction <u>Light PR.</u>	-	.13		Correction for Thickness of Deck amidships	14.16	-		Other corrections, scantlings, etc.	-	-			20.36	4.88	+ 15.48				Summer Freeboard = <u>15.19</u>
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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	Tropical Fresh Water Freeboard
Fresh Water Line	Fresh Water
Tropical Line	Tropical
Winter Line below	Winter
Winter North Atlantic Line	Winter North Atlantic



