

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. 117
(For London Office only).

Ship's Name <u>ROTTERDAM DRYDOCK</u>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
PROPOSED TANKER					Date of Survey <u>21-10-38</u>
Moulded Dimensions: Length <u>434.00</u> Breadth <u>62.50</u> Depth <u>24.50</u> (To centre of rudderstock)					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Particulars of Classification <u>100 A.I. Carrying Petroleum & bulk. (contemplated)</u>
Coefficient of fineness for use with Tables <u>.78 (Given by Owners)</u>					

Depth for Freeboard (D). Moulded depth <u>24.50</u> Stringer plate ... <u>.60</u> <u>.05</u> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>24.55</u>	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = <input checked="" type="checkbox"/> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = $(28.93-24.55)3 = -13.14$ $\frac{7}{7.6} \times 13.14 = -12.26$ <input checked="" type="checkbox"/> If restricted by superstructures <input checked="" type="checkbox"/>	Round of Beam correction. Moulded Breadth (B) <u>62.50</u> Standard Round of Beam = $\frac{B \times 12}{50} = 15.00$ Ship's Round of Beam = <u>15.00</u> Difference <input checked="" type="checkbox"/> Restricted to Correction = $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L}) =$ <input checked="" type="checkbox"/>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>107.00</u>	<u>107.00</u> ✓	<u>7.00</u>	<u>7.00</u> ✓	<u>99.86</u> ✓
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
Fore enclosed	<u>60.00</u>	<u>60.00</u> ✓	<u>7.50</u>	<u>7.50</u> ✓	<u>60.00</u>
„ overhang					
Trunk aft		<u>168.12</u> ✓	<u>7.00</u>	<u>7.00</u> ✓	<u>156.90</u>
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<u>167.00</u>	<u>335.12</u>			<u>316.76</u>

Standard Height of Superstructure 7.50
 „ „ R.Q.D. ☒
 Deduction for complete superstructure 42.00
 Percentage covered $\frac{S}{L} = 38.48$ ✓
 „ „ $\frac{S_1}{L} = 27.21$ ✓
 „ „ $\frac{E}{L} = 22.98$ ✓
 Percentage from Table, Line A. 66.67 ✓
 (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 = 42.00 × .6667 = -28.00

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>53.40</u>	1			<u>27.00</u>		1		<u>27.00</u>
$\frac{1}{2}L$ from A.P.		4			<u>12.00</u>		4		<u>48.00</u>
$\frac{3}{8}L$ „		2			<u>4.00</u>		2		<u>8.00</u>
Amidships		4					4		
$\frac{3}{8}L$ from F.P.		2			<u>6.00</u>		2		<u>12.00</u>
$\frac{1}{2}L$ „		4			<u>22.00</u>		4		<u>88.00</u>
F.P.	<u>106.80</u>	1			<u>48.00</u>		1		<u>48.00</u>
Total				<u>480.60</u>					<u>231.00</u>

Mean actual sheer aft = Deficient
 Mean standard sheer aft = Deficient
 Mean actual sheer forward = Deficient
 Mean standard sheer forward = Deficient
 Length of enclosed superstructure forward of amidships = Deficient
 „ „ aft of „ = Deficient
 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{249.60}{18} \left(\frac{75-192.4}{2 \times 434} \right) = +7.73$
 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 = <u>24.55</u> Ft. Summer freeboard = <u>4.64</u> Moulded draught (d) = <u>19.91</u> 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) <u>82.14</u> ✓ Correction for coefficient $\frac{78+68}{1.36} = \frac{1.46}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction</td> <td></td> <td><u>12.26</u> ✓</td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td><u>28.00</u></td> </tr> <tr> <td>Sheer correction</td> <td><u>7.73</u></td> <td></td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>7.73</u></td> <td><u>40.26</u></td> </tr> <tr> <td>Summer Freeboard =</td> <td colspan="2"><u>55.65</u></td> </tr> </tbody> </table>		+	-	Depth Correction		<u>12.26</u> ✓	Deduction for superstructures		<u>28.00</u>	Sheer correction	<u>7.73</u>		Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.				<u>7.73</u>	<u>40.26</u>	Summer Freeboard =	<u>55.65</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
Fresh Water Line	„	„
Tropical Line	„	„
Winter Line	below	„
Winter North Atlantic Line	„	„

Tropical Fresh Water Freeboard
Fresh Water	„	„
Tropical	„	„
Winter	„	„
Winter North Atlantic	„	„