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LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received
 Index No.
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Ship's Name <i>ss. "Capetan Antonis"</i> <i>exp. "Rembrandt"</i>	Official Number <i>168048</i>	Nationality and Port of Registry <i>Liberian</i> <i>Antish</i> <i>London</i>	Gross Tonnage <i>1940</i>	Date of Build <i>1940</i>	Port of Survey
Moulded Dimensions: Length <i>425.56</i> Breadth <i>54.45</i> Depth <i>37.31</i>					Date of Survey <i>20/11/54</i>
Freeboard Length <i>425.56</i>					Surveyor's Signature <i>Two A1 w/10</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) tons					Particulars of Classification
Coefficient of fineness for use with Tables <i>.764 (estimated)</i>					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth <i>37.31</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(37.31 - 28.32) 3.0 = 27.00"</i>	Moulded Breadth (B) <i>54.45</i>
Stringer plate <i>.06</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.86$
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>14.50</i>
Depth for Freeboard (D) = <i>37.37</i>		Difference = <i>.64</i>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.64^2}{4} \left(1 - \frac{.9331}{14.50} \right) = .05"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed	<i>28.46</i>	<i>28.46</i>	<i>7.0</i>	<i>7.0/4.5</i>	<i>26.56</i>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<i>28.46</i>	<i>28.46</i>			<i>26.56</i>

Standard Height of Superstructure *7.5'*

" " R.Q.D. ☒

Deduction for complete superstructure *42.00"*

Percentage covered $\frac{S}{L} =$ *6.69*

" " $\frac{S_1}{L} =$ *6.24*

" " $\frac{E}{L} =$ *3.12*

Percentage from Table, Line A. = *3.12*

(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* x *.0312* = *1.31"*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<i>52.56</i>	1		<i>52.56</i>	<i>54.00</i>	<i>54.00</i>	1		<i>54.00</i>
$\frac{1}{2}$ L from A.P.	<i>23.39</i>	4		<i>93.56</i>	<i>24.00</i>	<i>24.00</i>	4		<i>96.00</i>
$\frac{3}{4}$ L	<i>5.78</i>	2		<i>11.56</i>	<i>6.00</i>	<i>6.00</i>	2		<i>12.00</i>
Amidships	<i>0</i>	4		<i>0</i>	<i>0</i>	<i>0</i>	4		<i>0</i>
$\frac{3}{4}$ L from F.P.	<i>11.56</i>	2		<i>23.12</i>	<i>12.00</i>	<i>12.00</i>	2		<i>24.00</i>
$\frac{1}{2}$ L	<i>46.78</i>	4		<i>187.12</i>	<i>48.00</i>	<i>48.00</i>	4		<i>192.00</i>
F.P.	<i>105.12</i>	1		<i>105.12</i>	<i>108.00</i>	<i>108.00</i>	1		<i>108.00</i>
Total				<i>473.04</i>					<i>486.00</i>

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{12.96}{18} \left(\frac{.45 - .0335}{.9335} \right) = .52'$

If limited on account of midship superstructure. *Yes - Nil.*

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft. *No.*

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *37.37*

Summer freeboard = *10.19*

Moulded draught (d) = *27.18*

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = *6.80 = 6\frac{3}{4}*

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 = $\frac{\Delta}{40 T}$ inches = *7"*

TABULAR FREEBOARD

Corrected for Flush Deck (if required)

Correction for coefficient *1.444 / 1.36*

Depth Correction *27.00* ✓

Deduction for superstructures ✓ *1.31*

Sheer correction ✓ ✓

Round of Beam correction ✓ *.05*

Correction for Thickness of Deck amidships ✓ ✓

Other corrections, scantlings, etc. to *9.73* ✓

correspond to a summer moulded draught of 27.18

	+	-
Depth Correction	<i>27.00</i>	✓
Deduction for superstructures	✓	<i>1.31</i>
Sheer correction	✓	✓
Round of Beam correction	✓	<i>.05</i>
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc. to	<i>9.73</i>	✓
	<i>36.43</i>	<i>1.46</i>

Summer Freeboard = *122.25*

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

Tropical Fresh Water Line above Centre of Disc	...	<i>13\frac{3}{4}"</i>	Tropical Fresh Water Freeboard	...	<i>9' - 0\frac{1}{2}"</i>
Fresh Water Line	"	<i>7"</i>	Fresh Water	"	<i>9' - 4\frac{1}{4}"</i>
Tropical Line	"	<i>6\frac{3}{4}"</i>	Tropical	"	<i>9' - 4\frac{1}{2}"</i>
Winter Line below	"	<i>6\frac{3}{4}"</i>	Winter	"	<i>10' - 9"</i>
Winter North Atlantic Line	"	✓	Winter North Atlantic	"	✓