

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR ~~STEAMER, SAILING SHIP~~, TANKER)

For LONDON OFFICE ONLY

Received

Index No.

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Owners C11

Ship's Name S/T "KUWAIT"	Official Number 1539	Nationality and Port of Registry LIBERIAN MONROVIA	Gross Tonnage 17.612	Date of Build 3- 1949	Port of Survey NAPLES Date of Survey 30.10.63 Surveyor's Signature <i>[Signature]</i> Particulars of Classification +100 A1 OIL TANKER
Moulded Dimensions: Length 600.00' Breadth 82.5' Depth 42.5' Freeboard Length 601.10' - to E of rudder stock. Moulded displacement at moulded draught = 85 per cent. of moulded depth 39500 tons (excluding bossing) Coefficient of fineness for use with Tables - .772					

DEPTH FOR FREEBOARD (D). Moulded depth 42.50 Stringer plate 1.18" Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 42.60	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = $(42.60 - 40.07) 3 = +7.59"$ (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) 82.50' Standard Round of Beam = $\frac{B \times 12}{50} =$ 19.80" Ship's Round of Beam = 20.00" Difference 20" Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = \frac{20}{4} \times .565 = -0.03"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed	134.96	134.96	8.45'	-	134.96
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	44.93	44.93	8.50'	-	44.93
" overhang aft	3.42	2.87			2.87
" overhang forward					
F'cle enclosed	76.26	76.26	8.50'	-	76.26
" overhang	5.49	2.75			2.75
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	265.06	261.47			261.47

Standard Height of Superstructure **7.50**

" " R.Q.D. **-**

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} =$ **44.10**

" " $\frac{S_i}{L} =$ **43.50**

Percentage from Table, Line A. **TANKER = 34.50**
 (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 = $42.00 \times .3450 = -14.49"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	70.11	1		70.11	17.75"	17.75	1		17.75
$\frac{1}{4}$ L from A.P.	31.20	4		124.80	3.31"	3.31	4		13.24
$\frac{1}{4}$ L "	7.71	2		15.42	0	0	2		0
Amidships	0	4		0	0	0	4		0
$\frac{3}{4}$ L from F.P.	15.42	2		30.84	0	0	2		0
$\frac{3}{4}$ L "	62.40	4		249.60	4.12"	4.12	4		16.48
F.P.	140.22	1		140.22	19.94"	19.94	1		19.94
Total				630.99					67.41

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \left(\frac{563.58}{18} - 2.69 \right) \times (.75 - .2208) = +15.15"$

If limited on account of midship superstructure.

Mean actual sheer aft =
 Mean standard sheer aft = } **DEFICIENT**

Mean actual sheer forward =
 Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships =
 " " aft of " = } **TANKER**

ALLOWANCE FOR EXCESS POOP HEIGHT
 $= \frac{1}{3} \times 130.35 / 601.10 \times 12(10.6 - 7.5) = 2.69"$

5298
 $(.75 - .2208) = +15.15"$
 If limited to maximum allowance of 1 1/2 ins. per 100ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 42.60 Summer freeboard = 10.38 Moulded draught (d) = 32.22 Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = 8.06' Winter freeboard = $\frac{d}{4}$ inches = 8" Addition for Winter North Atlantic Freeboard (if required) = 8.06 + 6.01 = 14.07 = 14"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 35105 Tons per inch immersion at summer load water line $T =$ 98.2 Deduction = $\frac{\Delta}{40 T}$ inches = 8.94 = 9"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.772 + .680}{1.36} \times 1.452 / 1.36$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>7.59</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>14.49</td> </tr> <tr> <td>Sheer correction</td> <td>15.15</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td>0.03</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>22.74</td> <td>14.51</td> <td>- 8.22</td> </tr> </table> Summer Freeboard = 124.16		+	-	Depth Correction	7.59	-	Deduction for superstructures	-	14.49	Sheer correction	15.15	-	Round of Beam correction	-	0.03	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-	22.74	14.51	- 8.22
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

ASSIGN PREVIOUS	Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
A.B. FREEBOARDS.	Fresh Water Line " " 17"	Fresh Water " " 8 1/2"
	Tropical Line " " 9"	Tropical " " 9 1/2"
	Winter Line below " " 8"	Winter " " 11 1/2"
	Winter North Atlantic Line " " 14"	Winter North Atlantic " " 11 1/2"

