

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

28 FEB 1949

Ship's Name <b>M. V. 'MELTEM'</b>	Official Number	Nationality and Port of Registry <b>TURKISH. ISTANBUL.</b>	Gross Tonnage	Date of Build <b>1949</b>	Port of Survey <b>TRIESTE</b>
Moulded Dimensions: Length <b>80.0'</b> Breadth <b>15.78'</b> Depth <b>6.13'</b>					Date of Survey <b>FEB. 1949</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>147</b> METRIC tons					Surveyor's Signature <b>S. B. Ramsden</b>
Coefficient of fineness for use with Tables <b>.770</b> ✓					Particulars of Classification <b>CONTEMPLATED CLASS. A. WITH FBO CORRESPONDING TO A SUMMER MOULDED DRAFT OF 4'-11" FOR SERVICE IN THE BOSPHORUS. CARRYING PETROLEUM IN BULK.</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. <b>6.13'</b> Stringer plate ... .. <b>.015</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>6.15'</b> ✓	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(6.15 - 5.33) \cdot 615 = +.50"$ ✓ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ ✓ If restricted by superstructures ✓	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) <b>15.78'</b> ✓ Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>3.79"</b> ✓ Ship's Round of Beam = <b>4"</b> ✓ Difference <b>+3.21</b> ✓ Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{3.21}{4} \times .6938 = -.56"$ ✓
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	24.6'	24.50	4.4'	4.4/6.00	17.97
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... ..					
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	24.50	24.50			17.97

Standard Height of Superstructure	6.0' ✓
" " R.Q.D.	14.0" ✓
Deduction for complete superstructure	
Percentage covered $\frac{S}{L} =$	30.62 ✓
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	22.46 ✓
Percentage from Table, Line A.	11.23 ✓
(corrected for absence of forecastle (if required))	6.23 ✓
Percentage from Table, Line B.	✓
(corrected for absence of forecastle (if required))	✓
Interpolation for bridge less than .2L (if required)	✓
Deduction =	$14 \times .0623 = -.87"$ ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	18.00	1	18.00	9.8"	9.80	1	9.80
$\frac{1}{8}L$ from A.P. ... ..	8.01	4	32.04	1.6"	1.60	4	6.40
$\frac{2}{8}L$ " ... ..	1.98	2	3.96	-.40"	-.40	2	-.80
Amidships ... ..	-	4		-		4	
$\frac{3}{8}L$ from F.P. ... ..	3.36	2	7.92	6"	2.96	2	7.92
$\frac{4}{8}L$ " ... ..	16.02	4	64.08	17.6"	16.02	4	64.08
F.P. ... ..	36.00	1	36.00	35"	36.00	1	36.00
Total ... ..			162.00				123.40

Mean actual sheer aft	=	6.50 ✓
Mean standard sheer aft	=	
Mean actual sheer forward	=	71.00 ✓
Mean standard sheer forward	=	

Length of enclosed superstructure forward of amidships	=	NIL
" " aft of "	=	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{38.60}{18} (.75 - .1531) = +1.28"$  ✓  
 If limited on account of midship superstructure.  $.5269$  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	=	6.15' ✓
Summer freeboard	=	1.23' ✓
Moulded draught (d)	=	4.92' ✓

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $1.23 = 1\frac{1}{4}"$  ✓

## Addition for Winter North Atlantic Freeboard (if required)=

## Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 140 \text{ MET. TONS}$   
 Tons per inch immersion at summer load water line  
 $T = 2.47 \text{ M. TONS.}$

Deduction =  $\frac{\Delta}{40 T}$  inches  
 $= 1.42"$  ✓  
 $= 1\frac{1}{2}"$  ✓

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	.50	-
Deduction for superstructures		.87
Sheer correction	1.28	-
Round of Beam correction		.56
Correction for Thickness of Deck amidships		-
Other corrections, scantlings, etc. corresponding to a summer moulded draught of 4'-11"	5.87	-
	7.65	1.43
Summer Freeboard =	14.75	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <del>Wood</del> Steel, Deck :- FOR SERVICE ONLY. $1' - 2\frac{3}{4}" = 375 \text{ mm}$ ✓			
Tropical Fresh Water Line above Centre of Disc	not assigned	Tropical Fresh Water Freeboard	$1' - 1\frac{1}{4}" = 337 \text{ mm}$ ✓
Fresh Water Line	" "	Fresh Water	" "
Tropical Line	" "	Tropical	" "
Winter Line	below	Winter	$1' - 4" = 407 \text{ mm}$ ✓
Winter North Atlantic Line	" "	Winter North Atlantic	" "



15.78'

14.44'

Fee £.....