

- 7 OCT 1941

RPT. C. 100 Comp

Same as VESTHARD  
except for  
revision of  
bridge

# Lloyd's Register of Shipping

## SURVEYS FOR FREEBOARD

COMPUTATION FOR STEAMER-SAILING SHIP (TANKER)

Ship's Name <b>KOCKUMS MEK VERKS.</b> M/S No 220	Official Number <b>100100</b>	Nationality and Port of Registry <b>Norwegian</b> <b>Oslo</b>	Date of Build <b>About 1941</b>	Port of Survey <b>Malmö.</b>
Moulded length (to centre of midline) <b>500.82'</b> ✓	Breadth <b>63.0'</b> ✓	Depth <b>38.50'</b> ✓	Moulded displacement (moulded draught = 85 per cent of moulded depth) <b>23010</b> ✓ tons	Part of Survey <b>Whilst building.</b>
Co-efficient of fineness for use with Tables <b>.780</b> ✓	Surveyor's Signature <b>A. Sundén</b>			Particulars of Classification <b>*100A1.</b> <b>Carrying petroleum in bulk (en)</b>

Depth for Freeboard (D) <b>38.50'</b> ✓	Depth correction (a) Where D is greater than Table depth: $(D - \text{Table depth}) R = 38.57 - 33.39 \times 3 = +15.54'$ ✓ (b) Where D is less than Table depth (if allowed): Table depth - D) R =	Round of Beam correction. Moulded Breadth (B) <b>63.0</b> ✓ Standard Round of Beam = $B \times 12 / 50 = 15.12$ ✓ Ship's Round of Beam = <b>18.70</b> ✓ Difference <b>3.58</b> ✓ Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( \frac{S}{L} \right) = \frac{3.58^2}{4} \times \frac{67.91}{100} = -.61$ ✓
Moulded depth <b>38.50'</b> ✓		
Stringer plate <b>.80"</b> ✓		
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		
Depth for Freeboard (D) = <b>38.567'</b> ✓	If restricted by superstructures.	

### DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure	R.Q.D.
Prop enclosed <b>101.00</b> ✓	<b>101.00</b> ✓	<b>7.75</b>		<b>101.00</b>	<b>7.5'</b> ✓	
" overhang						
R.Q.D. enclosed						
" overhang						
Bridge enclosed						
" overhang aft						
" overhang forward						
Wale enclosed <b>59.73</b> ✓	<b>59.73</b> ✓	<b>7.50</b>		<b>59.73</b>		
" overhang						
Trunk aft						
forward						
Tonnage opening aft						
forward						
Total <b>160.73</b> ✓	<b>160.73</b> ✓			<b>160.73</b> ✓		

Percentage covered $\frac{S}{L} = 32.09$ ✓	Percentage from Table, Line A <b>23.09</b> ✓
" $\frac{S_1}{L} = 32.09$ ✓	(corrected for absence of forecastle (if required))
" $\frac{E}{L} = 32.09$ ✓	Percentage from Table, Line B
	(corrected for absence of forecastle (if required))
	Interpolation for bridge less than 2L (if required)
Deduction = $42.00 \times .2309 = +9.70$ ✓	

### SHEER CORRECTION.

Station	Standard Ordinate	M	Product	Actual Ordinate	Effective Ordinate	S	Product	Mean actual sheer aft = Deficient
A.P.	<b>60.08</b> ✓	1	<b>60.08</b> ✓	<b>45.80</b> ✓	<b>45.80</b> ✓	1	<b>45.80</b> ✓	Mean standard sheer aft
1/2 from A.P.	<b>26.735</b> ✓	2	<b>106.94</b> ✓	<b>2.82</b> ✓	<b>2.82</b> ✓	2	<b>11.28</b> ✓	Mean actual sheer forward = Deficient.
1/2	<b>6.61</b> ✓	3	<b>13.22</b> ✓	<b>0</b> ✓	<b>0</b> ✓	3	<b>-</b> ✓	Mean standard sheer forward
Amidships	<b>-</b> ✓	4	<b>-</b> ✓	<b>0</b> ✓	<b>-</b> ✓	4	<b>-</b> ✓	Length of enclosed superstructure forward of amidships =
1/2 from E.P.	<b>13.22</b> ✓	3	<b>26.44</b> ✓	<b>0</b> ✓	<b>0</b> ✓	3	<b>-</b> ✓	Length of enclosed superstructure aft of
1/2	<b>52.47</b> ✓	2	<b>26.238</b> ✓	<b>20.60</b> ✓	<b>20.60</b> ✓	2	<b>82.40</b> ✓	
E.P.	<b>120.16</b> ✓	1	<b>120.16</b> ✓	<b>95.50</b> ✓	<b>95.50</b> ✓	1	<b>95.50</b> ✓	
Total	<b>540.72</b> ✓		<b>540.72</b> ✓	<b>95.50</b> ✓	<b>95.50</b> ✓		<b>234.98</b> ✓	

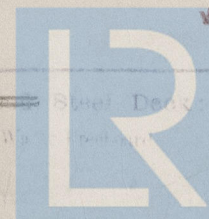
  

Difference between sum of products /  $\frac{305.74}{18} \times (.75 - .1604) = +10.01$  ✓

It limited to maximum allowance of 14.00 per cent.

Deduction for Tropical Freeboard	Deduction for Fresh Water	TABULAR FREEBOARD corrected for Fresh Water (if required)
Addition for V/L over the Vint No. 1	Correction for coefficient	$\frac{78 + .63}{136} = 1.46/136$ ✓
At waterline	Depth correction	<b>15.54</b> ✓
Depth <b>38.57</b> ✓	Correction for superstructures	<b>9.70</b> ✓
Depth <b>9.11</b> ✓	Sheer correction	<b>10.01</b> ✓
Depth <b>29.46</b> ✓	Round of Beam correction	<b>0.61</b> ✓
Depth <b>7.36</b> ✓	Correction for thickness of deck	
Depth <b>7.36 + 5.91 = 12.37</b> ✓	Other corrections, scantlings, etc.	

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Displacement in salt water and tons per inch immersion:-

Moulded draught.	Displacement	Tons/inch
70% = 26.95	18455 tons	65.25
75% = 28.875	19480 "	66.20
80% = 30.80	21540 "	67.14
85% = 32.725	23100 "	68.05

30.80	21540		67.14
28.875	19480	23100	66.20
1.925	2060	110	.94
	1925	22990	.29
29.06	19080		64.43
28.875	626		
.585	20106		

Grade of ship

Names of sister ships

Kockums M/T. 27 "Nestor" Arms. Hrd Reports 1908 d 1908 A.

Builder's name and yard number

Kockums Mek. Verk. AB. Malmö. No 220.

Johan Stenroos Oslo



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