

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>L. KAGANOVICH</b>	Official Number <b>?</b>	Nationality and Port of Registry <b>RUSSIAN</b> <b>VLADIVOSTOK</b>	Gross Tonnage <b>5621</b>	Date of Build <b>1937</b>	Port of Survey <b>London</b>
Moulded Dimensions: Length (on 9.15 m draft) <b>98.21 m</b> Breadth (Max) <b>23.1 m</b> Depth (to U.D.C.) <b>12.68 metres</b> <b>Freeboard L = 96 L = 98.21 m (= 102.3 metres.)</b>					Date of Survey <b>July 1949</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>not known</b> tons					Surveyor's Signature <b>E. Little</b>
Coefficient of fineness for use with Tables <b>.68 (assumed)</b>					Particulars of Classification <b>100A1 (Icebreaker)</b> <b>Contemplated</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... <b>12.680</b> Stringer plate ... <b>.0125</b> Sheathing on exposed deck <b>75 mm wood</b> $T \left( \frac{L-S}{L} \right) =$ <b>.075</b> Depth for Freeboard (D) = <b>12.767</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ <b>24.80 = + 12.85 m</b> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>6.219</b> If restricted by superstructures <input checked="" type="checkbox"/>	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) (Max) <b>23.1 metres</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>462 m/m</b> Ship's Round of Beam = <b>450 m/m</b> Difference <b>12 m/m</b> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{12}{4} = + 3 m/m$
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DEDUCTION FOR SUPERSTRUCTURES.					Standard Height of Superstructure
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

*Flush Deck*

Percentage covered  $\frac{S}{L} =$  **NIL**  
 $\frac{S_1}{L} =$  **NIL**  
 $\frac{E}{L} =$  **NIL**

Percentage from Table, Line A.  
 (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 = **NIL**

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	1072	1	1072	250	250	1	250
$\frac{1}{4}$ L from A.P. ...	476	4	1904	✓	✓	4	✓
$\frac{3}{4}$ L " ...	119	2	238	✓	✓	2	✓
Amidships ...	✓	4	✓	✓	✓	4	✓
$\frac{3}{4}$ L from F.P. ...	238	2	476	✓	✓	2	✓
$\frac{1}{4}$ L " ...	953	4	3812	✓	✓	4	✓
F.P. ...	2144	1	2144	250	250	1	250
Total ...			9646				500

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 =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{9146}{18} \times .75 = + 381 m/m$   
 If limited on account of midship superstructure. **✓**

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>12.697</b> Summer freeboard = <b>3.065</b> Moulded draught (d) = <b>9.632</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>200</b> Addition for Winter North Atlantic Freeboard (if required) = <b>200 + 50 = 250</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ <b>11,000 tons</b> Tons per inch immersion at summer load water line $T =$ <b>44.2 (per cm = 17.4)</b> Deduction = $\frac{\Delta}{40 T}$ inches = <b>158</b> <i>Say 170 on logane</i>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) <b>NIL</b> Correction for coefficient <b>NIL</b> Depth Correction ... <b>1270</b> Deduction for superstructures ... <b>381</b> Sheer correction ... <b>3</b> Round of Beam correction ... <b>3</b> Correction for Thickness of Deck amidships ... <b>5.8.49</b> Other corrections, scantlings, etc. ... <b>1654</b> Summer Freeboard = <b>3019</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, <del>Steel</del> , Deck :-			
Tropical Fresh Water Line above Centre of Disc	... <b>370</b> ...	Tropical Fresh Water Freeboard	... <b>26.95</b> ...
Fresh Water Line	... <b>170</b> ...	Fresh Water	... <b>28.95</b> ...
Tropical Line	... <b>200</b> ...	Tropical	... <b>28.65</b> ...
Winter Line below	... <b>200</b> ...	Winter	... <b>32.65</b> ...
Winter North Atlantic Line	... <b>250</b> ...	Winter North Atlantic	... <b>33.15</b> ...

*Freeboard increased by 8.19 m*  
*amidships by Russian authorities known*  
*rudder*



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.

Trade of ship

ICEBREAKER

Names of sister ships

Builder's name and yard number

Built at Nicolief State Yards

Owners

U.S.S.R.

Fee £

Inclusive Fee with

First Entry



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Foundation