

Rpt. C.11 (Comp.)

BELOVODSK.  
(Similar) 50060

For LONDON OFFICE ONLY

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

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

Received .....  
Index No. ....  
Govt. Copy .....  
Owners C11 .....

Ship's Name <b>"KOSMONAUT"</b>	Official Number	Nationality and Port of Registry RUSSIAN ODESSA	Gross Tonnage <b>10657.63</b>	Date of Build 1962	Port of Survey Copenhagen
Moulded Dimensions: Length 148.20m Breadth 21.19m Depth 12.73 m					Date of Survey whilst building
Freeboard Length 148.20 m					Surveyor's Signature <i>Thamptey</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (10.82m) 22.600 tons (excluding bossing)					contemplated
Coefficient of fineness for use with Tables .680					Particulars of Classification + 100 A.1.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	12.730	(a) Where D is greater than Table depth (D-Table depth) R =	8.33(12.764 - 9.880)30.00 = +72mm	Moulded Breadth (B)	21.19m
Stringer plate	.034	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 48}{50}$	425mm
Wood Sheathing on exposed deck				Ship's Round of Beam	425mm
$T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Difference	-
Depth for Freeboard (D) =	12.764			Restricted to	
				Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S}{L} \right)$	Nil

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward	29.075				
F'cle enclosed	28.705	29.075	2.450	-	29.075
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	29.075	29.075			29.075

Standard Height of Superstructure 2.290  
R.Q.D. -  
Deduction for complete superstructure 1067  
Percentage covered  $\frac{S}{L} =$   
" "  $\frac{S_i}{L} =$  19.62  
" "  $\frac{E}{L} =$   
Percentage from Table, Line A. 9.81  
(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 = 1067 x .0981 = 105mm.

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1489	1	1489	1450	1450	1	1450
$\frac{1}{2}L$ from A.P.	661	4	2644	660	660	4	2640
$\frac{3}{4}L$ "	165	2	330	170	170	2	340
Amidships	0	4	0	0	0	4	0
$\frac{3}{4}L$ from F.P.	331	2	662	360	360	2	720
$\frac{1}{2}L$ "	1323	4	5292	1325	1325	4	5300
F.P.	2977	1	2977	2895	2895	1	2895
Total			13394				13345

Mean actual sheer aft = Deficient  
Mean standard sheer aft =  
Mean actual sheer forward = Deficient  
Mean standard sheer forward =  
Length of enclosed superstructure forward of amidships = } Nil  
" " aft of " = }

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{S}{.75 - 2L} \right) = \frac{59}{18} (.75 - .0981) = +2mm$   
If limited on account of midship superstructure. (If limited to maximum allowance of 1 1/2 ins. per 100ft.)

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>line 300mm below P.M.</p> <p>Depth to Freeboard Deck = 12.464</p> <p>Summer freeboard = 2.813</p> <p>Moulded draught (d) = 9.651</p> <p>Keel allowance =</p> <p>Extreme draught =</p> <p>Deduction for Tropical freeboard and addition for =</p> <p>Winter freeboard = <math>\frac{d}{48}</math> inches = 201mm</p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>taken in S.W. at 1016kg</p> <p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta = 19990</math></p> <p>Tons per inch immersion at summer load water line</p> <p>T = 63.18</p> <p>Deduction = <math>\frac{\Delta}{40T}</math> inches = 7.91</p> <p>9.510 19645 62.9</p> <p>9.660 20012 63.25</p> <p>9.810 20390 63.60</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient Nil</p> <table border="1"> <tr><td>+</td><td>-</td></tr> <tr><td>721</td><td>-</td></tr> <tr><td>-</td><td>105</td></tr> <tr><td>2</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>300</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>723</td><td>405</td></tr> </table> <p>Summer Freeboard = 2813mm</p>	+	-	721	-	-	105	2	-	-	-	-	300	-	-	723	405
+	-																	
721	-																	
-	105																	
2	-																	
-	-																	
-	300																	
-	-																	
723	405																	

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

Tropical Fresh Water Line above Centre of Disc	402mm	Tropical Fresh Water Freeboard	2813mm
Fresh Water Line	201mm	Fresh Water	2411mm
Tropical Line	201mm	Tropical	2612mm
Winter Line below	201mm	Winter	3014mm
Winter North Atlantic Line	...	Winter North Atlantic	not required

13 NOV 1962

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 Ocean Going *48726 50060*  
Names of sister ships "BELORETSK", "BELOVODSK" (Naskov Skibsv. Nos. 166 & 167)  
Builder's name and yard number Burmeister & Wain No. 791  
Owners U.S.S.R.  
Fee £ To be charged *[Signature]*  
with F.E.

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950", paragraph 11.)

MIDSHIP SECTION  
PROFILE & DECKS  
STEEL HATCH COVERS



© 2021

Lloyd's Register  
Foundation