

LLOYD'S REGISTER OF SHIPPING
SURVEYS FOR FREEBOARD
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received 5 AUG 1964
Index No.
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Owners C11

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
"BIJSK"		RUSSIA ODESSA	10683.77	1964	Copenhagen
Moulded Dimensions: Length 148.20 m Breadth 21.19 m Depth 13.10 m					Date of Survey During Construction
Freeboard Length 148.226 m (to Rudder stock)					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23688 long. tons					contemplated
(excluding bossing)					Particulars of Classification + 100A1
Coefficient of fineness for use with Tables .68 (ACTUAL .671)					Ice Class 3

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 13.100	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) .424
Stringer plate 0.034	8.33(13.134-9.982)30 = +812mm.	Standard Round of Beam = $\frac{B \times 12}{50} = 21.19$ m
Wood Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam = 0.375 m
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference -49mm.
Depth for Freeboard (D) = 13.134		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_i}{L} \right) = \frac{49}{4} \times .7895 = +9.7$ mm.

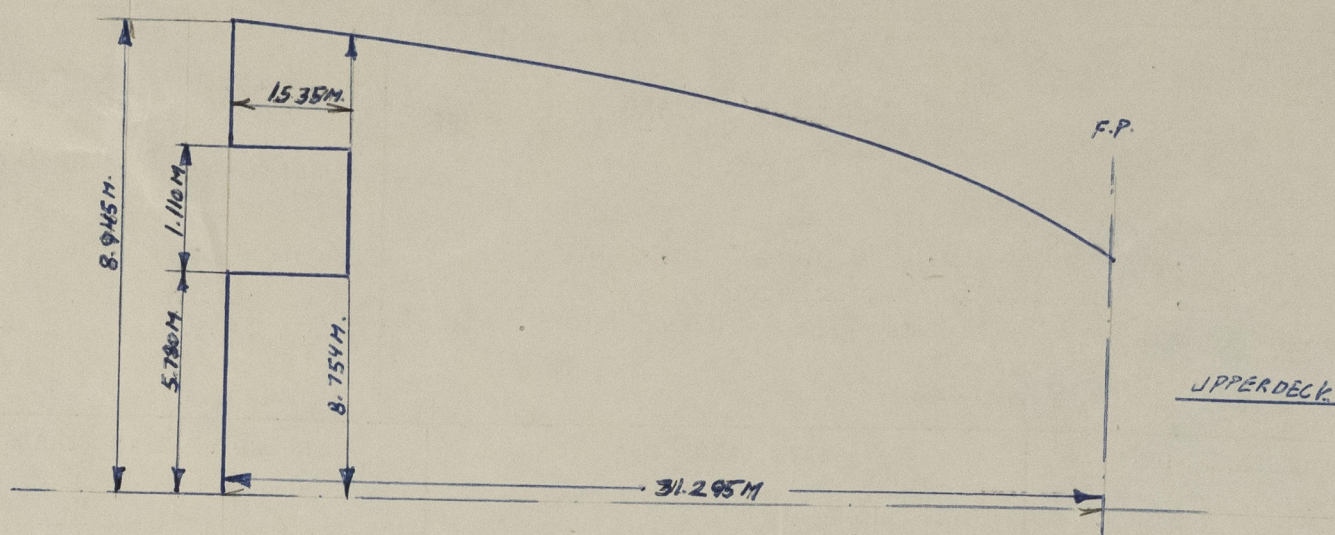
DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward	31.104	31.104			
F'cle enclosed	31.295	31.295	2.45m	-	31.104
" overhang	.191	.096			.096
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	31.295	31.200			31.200
Standard Height of Superstructure 2.29 m.					
R.Q.D. -					
Deduction for complete superstructure 1067 mm					
Percentage covered $\frac{S}{L} = 21.11$					
" $\frac{S_i}{L} = 21.05$					
" $\frac{E}{L} =$					
Percentage from Table, Line A. = 10.53					
(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 .1053 = 112 mm.					

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P.	1489	1	1489	900	900	1	900
1/4 L from A.P.	662	4	2648	122	122	4	488
1/2 L	164	2	328	0	0	2	0
Amidships	0	4	0	0	0	4	0
3/4 L from F.P.	328	2	656	0	0	2	0
1/4 L	1325	4	5300	514	514	4	2056
F.P.	2977	1	2977	1800	1800	1	1800
Total			13,398				5,244
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{8154}{18} (.75 - .1056) = +292$ mm.							
If limited on account of midship superstructure.							
Mean actual sheer aft							
Mean standard sheer aft							
Mean actual sheer forward							
Mean standard sheer forward							
Length of enclosed superstructure forward of amidships =							
aft of =							

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient NIL.
Depth to Freeboard Deck = 13.134	$\Delta = 19,948$	Depth Correction ... 812
Summer freeboard = 3.498	Tons per inch immersion at summer load water line	Deduction for superstructures ... 112
Moulded draught (d) = 9.636	T = 63.216	Sheer correction ... 292
Keel allowance =	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... 10
Extreme draught =	= 7.89 = 200 mm	Correction for Thickness of Deck amidships ...
Deduction for Tropical freeboard and addition for =	D = 9.82m; $\Delta = 20410$; T = 63.6	Other corrections, scantlings, etc. ...
Winter freeboard = $\frac{d}{48}$ inches = 201 mm	D = 9.67m; $\Delta = 20020$; T = 63.3	
Addition for Winter North Atlantic Freeboard (if required) = NOT REQUIRED.	D = 9.52m; $\Delta = 19660$; T = 62.9	
		Summer Freeboard = 3498 mm.

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-			
Tropical Fresh Water Line above Centre of Disc	401 mm	Tropical Fresh Water Freeboard	30.97 mm
Fresh Water Line	200 mm	Fresh Water	32.98 mm
Tropical Line	201 mm	Tropical	32.97 mm
Winter Line below	201 mm	Winter	36.99 mm
Winter North Atlantic Line		Winter North Atlantic	NOT REQUIRED.

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.



$$\begin{aligned}
 &\text{EQUIVALENT LENGTH OF FCSLE} \\
 &\text{LENGTH AT SIDE} = 31.295 \\
 &- \frac{1.10 \times 1.535}{8.954} = .191 \\
 &\text{EQUIV} = 31.104 \text{ M.}
 \end{aligned}$$

Trade of ship Ocean Going Dry Cargo

Names of sister ships

Builder's name and yard number Nakskov Skibsværft No. 172

Owners Sudoimport U.S.S.R.

Fee £ : To be charged with F.E.

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

PROFILE & DECKS
MIDSHIP SECTION.



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