

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

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

Ship's Name IVAN	Official Number	Nationality and Port of Registry Swedish Gothenburg	Gross Tonnage About 550	Date of Build 1946 7	Port of Survey..... Kalmar
Moulded Dimensions: Length..... 47.342 M. Breadth..... 8.687 M. Depth..... 3.734 Metres.					Date of Survey..... Whilst building
Freeboard Length..... 47.467 Metres to Centre Line of Rudder Stock.					Surveyor's Signature..... <i>Hanno Linn</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth..... 870 M³					Particulars of Classification..... +100A1
Coefficient of fineness for use with Tables..... .68 (Actual .6648)					

Depth for Freeboard (D). M.		Depth correction.		Round of Beam correction.	
Moulded depth	3.734	(a) Where D is greater than Table depth (D—Table depth) R =		Moulded Breadth (B)	8.687
Stringer plate..... Main deck (R.Q.D. 9 mm.)	.011	8.33(3.745-3.164)11.986 = +58 mm.		Standard Round of Beam = $\frac{B \times 12}{50}$	174 mm.
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth—D) R =		Ship's Round of Beam	175 mm.
$T \left(\frac{L-S}{L} \right) =$				Difference Excess	= 1 mm.
Depth for Freeboard (D) =	3.745	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1}{4} \times .2442 =$	N11.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	12935	12935	2200		12935	Standard Height of Superstructure..... 1.83
» overhang						» » R.Q.D. 1025
R.Q.D. enclosed	17690	17690	1000	1000/1025	17258	Deduction for complete superstructure..... 548 mm.
» overhang						Percentage covered $\frac{S}{L} =$ 75.58
Bridge enclosed						» » $\frac{S_1}{L} =$ 75.58
» overhang aft						» » $\frac{E}{L} =$ 69.65
» overhang forward						Percentage from Table, Line A. (corrected for absence of forecastle [if required])
Fore enclosed	5252	5252	1000	1000/1830	2870	Percentage from Table, Line B. (corrected for absence of forecastle [if required]) 62.4
» overhang						Interpolation for bridge less than 2L (if required)
Trunk aft						Deduction = 548 x .624 = -342 mm.
» forward						
Tonnage opening aft						
» forward						
Total	35877	35877			33063	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	649	1	649	642	642	1	642			Mean actual sheer aft = Excess
1/6 L from A.P.	289	4	1156	302	302	4	1208			Mean actual sheer forward = Excess
2/6 L »	72	2	144	81	81	2	162			Mean standard sheer forward = Excess
Amidships	-	4	-	0	-	4	-			Length of enclosed superstructure forward of amidships = .145
2/6 L from F.P.	144	2	288	140	140	2	280			» » aft of » = .500
1/6 L »	577	4	2308	582	582	4	2328			
F.P.	1299	1	1299	1305	1305	1	1305			
Total			5844				5925			
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{81}{18} \times (-.75 - .3779) = -2 \text{ mm.}$										If limited to maximum allowance of 1 1/2 ins. per 100 ft.
If limited on account of midship superstructure. $2 \times 1000/1025 = -2 \text{ mm.}$										

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. R.Q. Depth to Freeboard Deck = 4.743 Summer freeboard = 1.126 Moulded draught (d) = 3.617 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \times 1000 =$ 75 mm. Addition for Winter North Atlantic Freeboard for 75 + 51 = 126 mm.		Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 1051.7 Metric. Tons per mm immersion at summer load water line $T =$ 3.47 Deduction = $\frac{\Delta}{40 T}$ inches cm. = 76 mm.		TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient --- Depth Correction..... 58 Deduction for superstructures..... 342 Sheer correction..... 2 Round of Beam correction..... --- Correction for Thickness Raised Quarter Deck amidships..... 998 Other corrections, scantlings, etc. --- 1056 344 + 712 Summer Freeboard = 1126 mm.		414 414 82B. 14.6.46	
---	--	--	--	---	--	---	--

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, WOOD Raised Quarter Steel/Deck:—			
Tropical Fresh Water Line above Centre of Disc	151 mm.	Tropical Fresh Water Freeboard	975 mm.
Fresh Water Line » »	76 mm.	Fresh Water » »	1050 mm.
Tropical Line » »	75 mm.	Tropical » »	1051 mm.
Winter Line below » »	75 mm.	Winter » »	1201 mm.
Winter North Atlantic Line » »	126 mm.	Winter North Atlantic » »	1252 mm.

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.

75% of moulded depth = 2800 mm. Displacement = 768 tons á 1000 kgs. Tons á 1000 kgs/cm. = 3.26
85% " " " = 3174 " " = 897 " " " " " " " " = 3.37
95% " " " = 3547 " " = 1027.5 " " " " " " " " = 3.46

Trade of ship General.

Names of sister ships M.S. "VESTRIA" and M.S. "RUTH", Yard Nos. 349 and 353 respectively.

Builder's name and yard number Kalmar Varv, Kalmar, Yard No. 355.

Owners Rederi A-B. Ruth (L.Glücksman, Mgr.), Gothenburg.

Fee Kr. ---



© 2020

Lloyd's Register
Foundation