

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. **14227**
(For London Office only).

No 17713

Ship's Name INARI	Official Number	Nationality and Port of Registry Finnish, Helsinki	Gross Tonnage 2345	Date of Build 1900	Port of Survey West Hartlepool.
Moulded Dimensions: Length 291.67 Breadth 42.5 Depth 21.83					Date of Survey 20th, 21st + 22nd July, 1937.
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature Hugh L. Walker
Coefficient of fineness for use with Tables .770					Particulars of Classification 100 A1.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 21.83	(a) Where D is greater than Table depth (D - Table depth) R = (21.84 - 19.45) 2.244 = + 5.43"	Moulded Breadth (B) 42.5
Stringer plate04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{42.5 \times 12}{50} = 10.20$
Heating on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = $10 \frac{1}{2} = 10.50$
Depth for Freeboard (D) = 21.87		Difference = .30 +
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.30}{4} \times .6053 = -.05"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	✓					Standard Height of Superstructure 6.417
" overhang ...	✓					" " R.Q.D. 4.556
R.Q.D. enclosed ...	16.83	16.83	3.4 1/2"	3.37	12.45	Deduction for complete superstructure 34.78
" overhang ...	✓					Percentage covered $\frac{S}{L} = 42.40$
Bridge enclosed ...	70.00	63.00	7.0"	✓	63.00	" " $\frac{S_1}{L} = 39.47$
" overhang aft ...	4.00	3.00	"		3.00	" " $\frac{E}{L} = 37.97$
" overhang forward	31.76					Percentage from Table, Line A. ✓
Fore enclosed ...	25.83	31.76	7.0"		31.76	(corrected for absence of forecastle (if required)) ✓
" overhang ...	1.07	.53	"		.53	Percentage from Table, Line B.
Trunk aft ...	✓					(corrected for absence of forecastle (if required)) 25.77
" forward ...	✓					Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft ...	✓					Deduction = 34.78 x .2577 = 8.96"
" " forward	✓					
Total ...	123.66	115.12			110.74	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
P. ...	39.17	1		39.17	40	40.00	1		40.00	Mean actual sheer aft = Deficient > 75% Standard.
from A.P. ...	17.43	4		69.72	13.43	13.43	4		53.72	Mean actual sheer forward = Excess
" ...	4.31	2		8.62	3.35	3.35	2		6.70	Mean standard sheer forward
amidships ...	✓	4			0	-	4		-	Length of enclosed superstructure forward of amidships = > .1L
from F.P. ...	8.62	2		17.24	9.06	9.06	2		18.12	" " aft of " = > .1L
" ...	34.86	4		139.44	36.34	36.34	4		145.36	
" ...	78.33	1		78.33	97	97.00	1		97.00	
Total ...				352.52					360.90	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{8.38}{18} (.75 - .212) = -.25"$
If limited on account of midship superstructure. **.538** If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Depth to Freeboard Deck = 21.87	Displacement in salt water at summer load water line $\Delta =$	Correction for coefficient $\frac{.770 + .68}{1.36} = \frac{1.450}{1.36}$
Summer freeboard = 3.36	Tons per inch immersion at summer load water line	Depth Correction ... 5.43
Moulded draught (d) = 18.51	T =	Deduction for superstructures ... 8.96
Correction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.63 = 118 m/m.	Deduction = $\frac{\Delta}{40 T}$ inches = 1/4 = 118 m/m.	Sheer correction25
Correction for Winter North Atlantic Freeboard (if required) 170 m/m		Round of Beam correction05
		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		5.43 9.26 - 3.83
		Summer Freeboard = 40.31

Midships from Centre of Disc to top of Deck Line, Steel, Deck:			
Fresh Water Line	above Centre of Disc	238 m/m	Tropical Fresh Water Freeboard ... 786
Tropical Line	"	119 "	Fresh Water " 905
Winter Line	"	119 "	Tropical " 905
Winter North Atlantic Line	"	119 "	Winter " 1143
	below	170 "	Winter North Atlantic " 1194

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.

Liverpool 36.83
 $\frac{23.33 \times 8}{36.83} = 5.07$
 31.76

Trade of ship

Ocean-going

Names of sister ships

Builder's name and yard number

Helsingfors Jernsk & Mask. Fabrik

Owners

F.A.B. "INARI" L.O.Y. (A/B John Dahlberg, Mgr)

Fee £

12 : 0 : 0

© 2021

Lloyd's Register
Foundation