

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

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

Received

Index No.

Govt. Copy

Owners C11

Ship's Name NEVERITA	Official Number	Nationality and Port of Registry Dutch	Gross Tonnage	Date of Build 1944	Port of Survey
Moulded Dimensions: Length 140.510 m Breadth 17.9837 Depth 10.3637					Date of Survey 18/1/60
Freeboard Length 140.510 m					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) _____ tons					Particulars of Classification +100 A1 C.P.I.B.
Coefficient of fineness for use with Tables .790					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 10.3637	(a) Where D is greater than Table depth (D - Table depth) R = 8.36 (10.383 - 9.367) 39 = +254 mm	Moulded Breadth (B) 17.9837
Stringer plate020	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 1.016	Standard Round of Beam = $\frac{B \times B}{50} = \frac{17.9837^2}{50} = \frac{360}{50} = 7.2$
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 375
Depth for Freeboard (D) = 10.3837		Difference = +15
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{15^2}{4} \times \left(1 - \frac{5}{28} \right) = \frac{15}{4} \times \frac{23}{28} = -2.4$

DEDUCTION FOR SUPERSTRUCTURES.				
Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equivalent</i> ... 29.288	29.288			29.288
" overhang ...				
R.Q.D. enclosed ...				
" overhang ...				
Bridge enclosed <i>equivalent</i> ... 14.387	14.387			14.387
" overhang aft ... 2.286	1.714			1.714
" overhang forward ...				
F'cle enclosed ... 14.643	14.643			14.643
" overhang ...				
Trunk aft ...				
" forward ...				
Tonnage opening aft ...				
" " forward ...				
Total ... 60.604	60.032			60.032

Standard Height of Superstructure **2290 mm**

R.Q.D. **✓**

Deduction for complete superstructure **1067 mm**

Percentage covered $\frac{S}{L} = \frac{60.032}{140.510} = 43.13$

" " $\frac{S_1}{L} = \frac{60.032}{140.510} = 42.72$

Percentage from Table, Line A. Tankers **33.72**

(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 .3372 = -360 mm**

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	1424	1	1424	1422	1424	1	1424
$\frac{1}{4}L$ from A.P. ...	633	4	2532	635	633	4	2532
$\frac{2}{6}L$...	158	2	316	157	157	2	314
Amidships ...	0	4	0	0	0	4	0
$\frac{2}{6}L$ from F.P. ...	316	2	632	309	309	2	618
$\frac{1}{4}L$...	1266	4	5064	1260	1260	4	5040
F.P. ...	2848	1	2848	2841	2841	1	2841
Total ...			12816				12769

Mean actual sheer aft = **Even.**

Mean standard sheer aft = **Even.**

Mean actual sheer forward = **Deficient**

Mean standard sheer forward = **Deficient**

Length of enclosed superstructure forward of amidships = **5040**

" " aft of " = **5040**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{47}{18} \left(\frac{.75 - .2156}{2} \right) = +1.1 \text{ mm}$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

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 $\frac{.79 \times .68}{1.36} = 1.42$
Depth to Freeboard Deck = 10.3837	$\Delta = 16794$	Depth Correction 254
Summer freeboard = 2.030	Tons per inch immersion at summer load water line	Deduction for superstructures 360
Moulded draught (d) = 8.3537	T = 56.10	Sheer correction 18
Keel allowance =	Deduction = $\frac{\Delta}{40 T} = \frac{16794}{40 \times 56.10} = 7.48$	Round of Beam correction 2
Extreme draught =		Correction for Thickness of Deck amidships
Deduction for Tropical freeboard and addition for =		Other corrections, scantlings, etc.
Winter freeboard = $\frac{d}{48} \text{ inches} = 174 \text{ mm} + 17 \text{ cm}$		Summer Freeboard = 2032
Addition for Winter North Atlantic Freeboard (if required) = 174 + 117 = 291 mm = 29 cm		

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

Tropical Fresh Water Line above Centre of Disc	36 cm
Fresh Water Line	19 cm
Tropical Line	17 cm
Winter Line below	17 cm
Winter North Atlantic Line	29 cm

Tropical Fresh Water Freeboard	167 cm
Fresh Water	184 cm
Tropical	186 cm
Winter	220 cm
Winter North Atlantic	232 cm

203 cm

167 cm

184 cm

186 cm

220 cm

232 cm

26 JAN 1960

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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.

POOP

$$\begin{aligned} \text{Length at side} &= 93.69' \checkmark \\ + \frac{2}{3} \times 3.60 &= \frac{2.40' \checkmark}{96.09' \checkmark} = 29.288' \checkmark \end{aligned}$$

BRIDGE

$$\begin{aligned} \text{Length at side} &= 44.60' \checkmark \\ + \frac{2}{3} \times 3.90 &= \frac{2.60' \checkmark}{47.20' \checkmark} = 14.387' \checkmark \end{aligned}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

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



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