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OWNERS' C.11 ISSUED

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Index No. 43462
(For London Office only.)

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

17 MAR 1952

Rpt. C.11 (Comp.)
DAGMAR
42966

Ship's Name BONITA N.N FERDER	Official Number 9336	Nationality and Port of Registry NORWEGIAN SWEDEN TÖNSBERG GÖTHEBURG	Gross Tonnage 11083	Date of Build 1952 4 Mo	Port of Survey BREMEN
Moulded Dimensions: Length 504.50' Breadth 68.24' Depth 37.403'					Date of Survey MARCH, 1952
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23780 tons					Surveyor's Signature O. H. C.
Coefficient of fineness for use with Tables .760					Particulars of Classification 100 A 1 CARRYING PETROLEUM IN BULK.

DEPTH FOR FREEBOARD (D)	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 37.403	(a) Where D is greater than Table depth (D - Table depth) R = (37.47 - 33.64)3 = +11.49"	Moulded Breadth (B) 68.24
Stringer plate ... 0.071	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 3.92	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{68.24 \times 12}{50} = 16.38"$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ 1	If restricted by superstructures	Ship's Round of Beam SEE SKETCH $\text{Equiv} = 14.73"$
Depth for Freeboard (D) = 37.474		Difference 1.65"
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.65}{4} \times 57.95 = +2.4$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed Equiv 40.13 40.13 + 7.8	40.13 105.97	105.97	8.04		105.97
" overhang ...					
R.Q.D. enclosed					
" overhang Equiv 43.1 43.1 + 7.8	43.1 47.67	47.67	8.04		47.67
Bridge enclosed					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed	58.5	58.50	8.15 6.56	6.56	51.17
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total	212.14	212.14			204.81

Standard Height of Superstructure	7.5
" " R.Q.D.	42
Deduction for complete superstructure	42
Percentage covered $\frac{S}{L} =$	42.05
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	40.60
Percentage from Table, Line A. TANKER	31.60
(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 = 42 x 31.60 = 13.27	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	60.45	1		60.45	56"	56.00	1		56.00
$\frac{1}{2}$ L from A.P. ...	26.90	4		107.60	12"	12.00	4		48.00
$\frac{3}{4}$ L " ...	6.65	2		13.30	0"	-	2		-
Amidships ...	-	4		0"	-	-	4		-
$\frac{3}{4}$ L from F.P. ...	13.30	2		26.60	0"	-	2		-
$\frac{1}{2}$ L " ...	53.80	4		215.20	12"	12.00	4		48.00
F.P. ...	120.90	1		120.90	115"	115.00	1		115.00
Total				544.05					267.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{277.05}{18} \left(.75 - \frac{2103}{2103} \right) = +8.31$

If limited on account of midship superstructure. **53.97** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

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

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 $\frac{760 + 68}{1.36} = 1.440$
Depth to Freeboard Deck = 37.47	$\Delta =$	Depth Correction ... 11.49
Summer freeboard = 8.38	Tons per inch immersion at summer load water line	Deduction for superstructures ... 13.27
Moulded draught (d) = 29.09	T = 72.49	Sheer correction ... 8.31
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... 24
Winter freeboard = $\frac{d}{4}$ inches = 7.27	= 7.77	Correction for thickness of Deck amidships ...
Addition for Winter North Atlantic Freeboard (if required) = 7.27 + 5.05 = 12.32	= 197 m/m	Other corrections, scantlings, etc. ...
		Summer Freeboard = 100.51

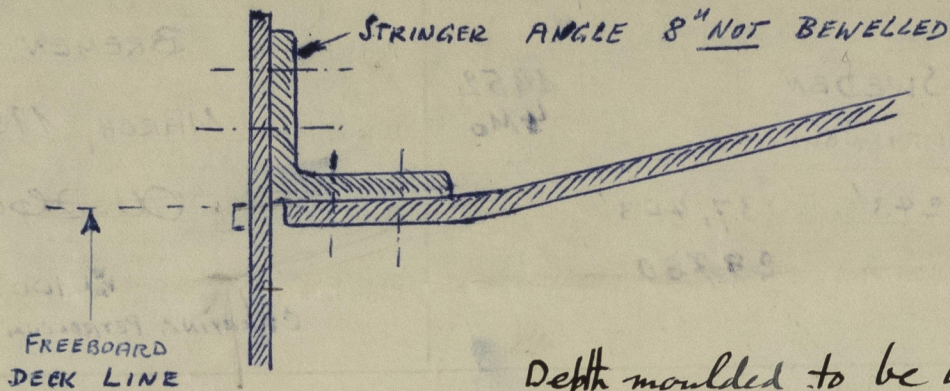
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	382 m/m	Tropical Fresh Water Freeboard	2171 m/m
Fresh Water Line	197 m/m	Fresh Water	2356 m/m
Tropical Line	185 m/m	Tropical	2368 m/m
Winter Line below	185 m/m	Winter	2738 m/m
Winter North Atlantic Line	313 m/m	Winter North Atlantic	2866 m/m

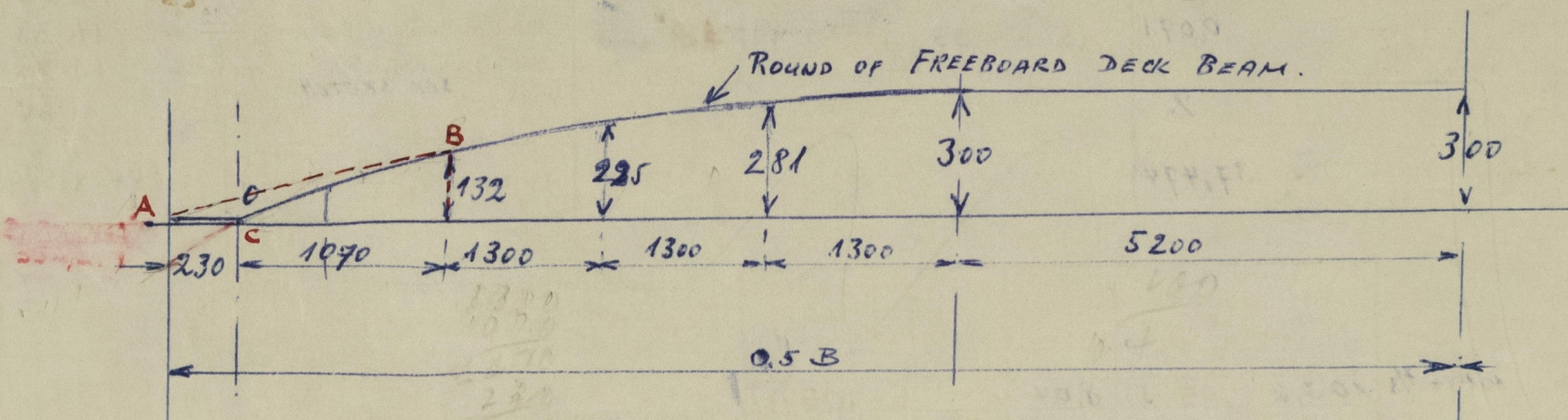
"Bonita."

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.

SKETCH: ROUND OF DECK BEAM



$$\text{Depth moulded to be used} = 37.40 - .11 = 37.29 \text{ ft.}$$



Area under camber curve.

$$\text{Area of rectangle} = 300 \times 5200 = 1560000$$

Ord. Sm. F.O

0	1	0
132	4	528
235	2	470
281	4	1124
300	1	300

$$\frac{2422 \times 5200}{3 \times 4} = 1049600$$

$$\text{Total } \frac{1}{2} \text{ area} = 2609600 \text{ m}^2 - 15180 = 2594420$$

$$\text{Equiv parabolic camber} = \frac{2594420}{10400 \times \frac{2}{3}} = 374.2 \text{ m/m} = 14.73"$$

$$\text{Area of approx triangle A.B.C.} = \frac{230 \times 132}{2} = 15180$$

$$\begin{aligned} \text{Poop. Length at side} &= 101.3 \\ + 7 \times \frac{2}{3} &= 4.67 \\ \text{Equiv} &= 105.97 \end{aligned}$$

$$\begin{aligned} \text{Bridge Length at side} &= 43.00 \\ + 7 \times \frac{2}{3} &= 4.67 \\ \text{Equiv} &= 47.67 \end{aligned}$$

Trade of ship UNRESTRICTED, FOREIGN GOING

Names of sister ships "DAGMAR SALEN" (MESSRS BREMER VULCAN'S YARD no 808)

Builder's name and yard number BREMER VULCAN'S YARD no 816

Owners DALEN, REDERI A/B, GOTHENBURG.

Fee £



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Foundation