

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. _____
 (For London Office only.)

Computation of Freeboard for ~~Steamer~~ Sailing Ship, Tanker

having Poop, Bridge & Stile

(Type of Superstructures.)

Ship's Name M.V. "VELMA"	Nationality and Port of Registry Norwegian	Official Number	Gross Tonnage	Date of Build 1930
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Port of Survey _____

Date of Survey _____

Name of Surveyor **Hou**

Particulars of Classification **7100A**
carrying petroleum - bill

Moulded Dimensions: Length **474** Breadth **64.0** Depth **37.25**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **22139** tons

Coefficient of fineness for use with Tables **.807** ✓

Depth for Freeboard (D) Moulded depth 37.25 Stringer plate07 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 37.32	Depth correction (a) Where D is greater than Table depth (D - Table depth) R = $(37.32 - 31.60)3 = +17.16$ ✓ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures	Round of Beam correction Moulded Breadth (B) 64 Standard Round of Beam = $\frac{B \times 12}{50} = 15.36$ Ship's Round of Beam = 15.75 Difference .39 Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{39}{4} \times .6257 = .06$ ✓
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	103.00 ✓	103.00	8'-3"	✓	103.00 ✓
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	35.17 ✓	35.17	8'-3"	✓	35.17 ✓
" overhang aft					
" overhang forward					
Stile enclosed	39.25 ✓	39.25	8'-3"	✓	39.25 ✓
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	177.42	177.42			177.42

Standard Height of Superstructure **7.5** ✓

" " R.Q.D. ✓

Deduction for complete superstructure **42.0** ✓

Percentage covered $\frac{S}{L} = 37.43\%$

" " $\frac{S_1}{L} = 37.43\%$

" " $\frac{E}{L} = 37.43\%$

Percentage from Table, Line A. ✓
 (corrected for absence of forecastle (if required)) ✓

Percentage from Table, ~~Line B.~~ **TANKER** **28.43%** ✓
 (corrected for absence of forecastle (if required)) ✓

Interpolation for bridge less than 2L (if required) ✓

Deduction = **42.0 x .2843 = -11.94** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	57.40	1			38.00 ✓	38.00	1		38.00 ✓
$\frac{1}{6}$ L from A.P.		4			5.16	5.16	4		20.64 ✓
$\frac{2}{6}$ L "		2			0	0	2		✓
Amidships		4			0	0	4		✓
$\frac{3}{6}$ L from F.P.		2			0	0	2		✓
$\frac{1}{6}$ L "		4			19.80	19.80	4		79.20 ✓
F.P.	114.80	1			76.00 ✓	76.00	1		76.00 ✓
Total				516.60					213.84 ✓

Mean actual sheer aft = **Def.**
 Mean standard sheer aft

Mean actual sheer forward = **Def.**
 Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } **Tanker**
 " " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{302.76}{18} \times (.75 - .1871) = +9.47$ ✓

If limited on account of midship superstructure. ✓

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

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 37.32 ✓ Summer freeboard = 8.62 ✓ Moulded draught (d) = 28.70 ✓ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.17 = 7 $\frac{1}{4}$ ✓ Addition for Winter North Atlantic Freeboard (if required) = 4.74 = 4 $\frac{3}{4}$ = 121 ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 20,002 Tons per inch immersion at summer load water line T = 62.88 Deduction = $\frac{\Delta}{40T}$ inches = 7.95 = 8" = 203 $\frac{1}{2}$ ✓	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.807 + .68}{1.36} = \frac{1.487}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>17.16 ✓</td> <td></td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td>11.94 ✓</td> </tr> <tr> <td>Sheer correction</td> <td>9.47 ✓</td> <td></td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td>.06 ✓</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td></td> <td></td> </tr> <tr> <td>Summer Freeboard = 103.41 ✓</td> <td></td> <td></td> </tr> </table>		+	-	Depth Correction	17.16 ✓		Deduction for superstructures		11.94 ✓	Sheer correction	9.47 ✓		Round of Beam correction06 ✓	Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.			Summer Freeboard = 103.41 ✓		
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... 15.4 = 387 $\frac{1}{2}$	Tropical Fresh Water Freeboard ... 8'-7 $\frac{1}{2}$" = 2629 $\frac{1}{2}$
Fresh Water Line " " ... 8. = 203 $\frac{1}{2}$	Fresh Water " " ... 7'-2 $\frac{1}{2}$" = 2242 $\frac{1}{2}$
Tropical Line " " ... 7 $\frac{1}{4}$" = 184 $\frac{1}{2}$	Tropical " " ... 8'-0 $\frac{1}{4}$" = 2445 $\frac{1}{2}$
Winter Line below " " ... 7 $\frac{1}{4}$" = 184 $\frac{1}{2}$	Winter " " ... 9'-2 $\frac{3}{4}$" = 2813 $\frac{1}{2}$
Winter North Atlantic Line " " ... 12 $\frac{1}{2}$" = 305 $\frac{1}{2}$	Winter North Atlantic " " ... 9'-7 $\frac{1}{2}$" = 2934 $\frac{1}{2}$