

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
ÖRESUNDSVARVET 126	-	-	-	-	Gothenburg
Moulded Dimensions: Length 153.01 m. Breadth 20.041 m. Depth 11.557 m.					Date of Survey 11/6/51
Freeboard Length 153.01 m.					Surveyor's Signature JRS.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23.600 tons					Particulars of Classification 100A1 C.F.B.
Coefficient of fineness for use with Tables .776					

<b>Depth for Freeboard (D).</b>	<b>Depth correction.</b>	<b>Round of Beam correction.</b>
Moulded depth 11,557	(a) Where D is greater than Table depth (D—Table depth) R = 344	Moulded Breadth (B) 20.041
Stringer plate 21	(11578-10.200) 8.33 x 30	Standard Round of Beam = $\frac{B \times 12}{50} = 400.8$
Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed) (Table depth—D) R = 1.378	Ship's Round of Beam = 400.0
$T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Difference 1.8
Depth for Freeboard (D) = 11,578		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.8}{4} \times .5735 = \text{NIL}$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	33.365	33.365	2.360	-	33.365
» overhang	-	-	-	-	-
R.Q.D. enclosed	-	-	-	-	-
» overhang	05	05	-	-	05
Bridge enclosed	11.520	11.520	2.360	-	11.520
» overhang aft	1.095	822	-	-	822
» overhang forward	-	-	-	-	-
Fore enclosed	19.170	19.170	2.285	19.170 x 2.285	19.140
» overhang	850	425	-	2290	424
Trunk aft	-	-	-	-	-
» forward	-	-	-	-	-
Tonnage opening aft	65.985	65.287	-	-	65.287
» forward	66.000	65.302	-	-	65.271
Total					

Standard Height of Superstructure 2.290

» » R.Q.D. -

Deduction for complete superstructure 1.067

Percentage covered  $\frac{S}{L} = 43.15\%$

» »  $\frac{S_1}{L} = 42.65\%$

» »  $\frac{E}{L} = 42.65\%$

Percentage from Table, ~~KIXX~~ TANKER = 33.65

(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 = 359 mm. 1067 x .3367 = -359

**SHEER CORRECTION.**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	1529	1	1529	1150	1150	1	1150		
1/6 L from A.P.	679	4	2716	200	200	4	800		
2/6 L	170	2	340	-	-	2	-		
Amidships	0	4	0	-	-	4	-		
2/6 L from F.P.	340	2	680	-	-	2	-		
1/6 L	1358	4	5432	660	660	4	2640		
F.P.	3058	1	3058	2800	2800	1	2800		
Total			13.755				7.390		

Mean actual sheer aft =  $\frac{1,750}{8,660} = .202$

Mean standard sheer aft =  $\frac{4,780}{17,320} = .276$

Mean actual sheer forward =  $\frac{4,780}{17,320} = .276$

Mean standard sheer forward =  $\frac{4,780}{17,320} = .276$

Length of enclosed superstructure forward of amidships =

» » aft of » = Tanker

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{6.365 - .75}{18} \left( .75 - \frac{.2157}{2} \right) = 189$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b>	<b>Deduction for Fresh Water.</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required)
<b>Addition for Winter and Winter North Atlantic Freeboard.</b>	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = 11578	$\Delta =$	$\frac{.68 + .776}{1.36} = \frac{1.456}{1.36}$
Summer freeboard = 25687	Tons per inch immersion at summer load water line	Depth Correction 344
29' - 6 3/4" Moulded draught (d) = 9012	T =	Deduction for superstructures 359
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40 T}$ inches =	Sheer correction 189
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction -
		Correction for Thickness of Deck amidships -
		Other corrections, scantlings, etc. -
		533 359 +174
		Summer Freeboard = 2.5667

**SUMMER FREEBOARD** amidships from Centre of Disc to top of Deck Line, ~~Wool~~ Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	.....
Fresh Water Line	»
Tropical Line	»
Winter Line	below
Winter North Atlantic Line	»

Tropical Fresh Water Freeboard	.....
Fresh Water	»
Tropical	»
Winter	»
Winter North Atlantic	»

© 2.5667

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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.

Superstructures.

Poop  $32.165 + \frac{2}{3} \times 1.800 = 33.365$

Bridge  $10.800 + \frac{2}{3} \times 1.600 = 11.867 \times \frac{19.431}{20.041} = 11.520$

overhang aft  $1.130 \times .75 \times \frac{19.431}{20.041} = 822$

$1130 \times \frac{19431}{20041} = 1.095$

Forecastle.

.IL = 15.301 mm.

19.170 forecastle length

overhang  $\frac{850}{2} = 425$  mm.

Sheep.

aft.

standard

ship.

1529 1 1529  
679 3 2037  
1698 3 5094  
0 1 0  
8.660

1150 1 1150  
200 3 600  
0 3 0  
0 1 0  
1.750

fwd.

17.320

ship.

0 1 0  
0 3 0  
660 3 1980  
2800 1 2800  
4.780

Trade of ship .....

Names of sister ships .....

Builder's name and yard number .....

Owners .....

Fee Kr. ....



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