

# Timber Freeboard

## Lloyd's Register of Shipping.

### SURVEYS FOR FREEBOARD.

Index. No. **31358**  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having a poop, bridge and forecastle

Port of Survey \_\_\_\_\_

Date of Survey 14-2-36

Name of Surveyor \_\_\_\_\_

Particulars of Classification +100A1

Ship's Name **FRYKEN** Nationality and Port of Registry Sweden Kristinehamn Official Number 7139 Gross Tonnage 1467 Date of Build 1924-8

Moulded Dimensions: Length 256.0 Breadth 38.17 Depth 18.81

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3479 tons

Coefficient of fineness for use with Tables .780

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>18.81</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(18.85 - 17.07) × 1.969 = +3.50</u> ✓	Moulded Breadth (B) _____
Stringer plate ... .. <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = _____	Standard Round of Beam = $\frac{B \times 12}{50} =$ _____
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ _____	If restricted by superstructures _____	Ship's Round of Beam _____
Depth for Freeboard (D) = <u>18.85</u>		Difference _____
		Restricted to _____
		Correction = $\frac{\text{Diff}^a}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <u>-.12</u> ✓

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..	<u>19.17</u>		<u>7.0</u>			Standard Height of Superstructure <u>6.06</u> ✓
„ overhang ... ..						„ „ R.Q.D. _____
R.Q.D. enclosed ... ..						Deduction for complete superstructure <u>31.60</u> ✓
„ overhang ... ..						Percentage covered $\frac{S}{L} =$ _____
Bridge enclosed ... ..	<u>57.50</u>		<u>7.0</u>			„ „ $\frac{S_1}{L} =$ _____
„ overhang aft ... ..	<u>6.00</u>					„ „ $\frac{E}{L} =$ <u>41.88</u> ✓
„ overhang forward ... ..						Percentage from Table, Line A. _____
Fore enclosed <u>spur</u> ... ..	<u>26.50</u>		<u>7.0</u>			(corrected for absence of forecastle (if required)) _____
„ overhang ... ..						Percentage from Table, <u>Line B. Timber</u> <u>64.18</u> ✓
Trunk aft ... ..						(corrected for absence of forecastle (if required)) _____
„ forward ... ..						Interpolation for bridge less than 2L (if required) _____
Tonnage opening aft ... ..						Deduction = <u>31.60 × 64.18 = -20.28</u> ✓
„ „ forward ... ..						
Total ... ..						

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..		1					1		
$\frac{1}{6}$ L from A.P. ... ..		4					4		
$\frac{2}{6}$ L „ ... ..		2					2		
Amidships ... ..		4					4		
$\frac{2}{6}$ L from F.P. ... ..		2					2		
$\frac{1}{6}$ L „ ... ..		4					4		
F.P. ... ..		1					1		
Total ... ..									

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  -.32 ✓

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.	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 $\frac{.78 + .68}{1.36} = \frac{1.46}{1.36} =$ _____
Depth to Freeboard Deck = <u>18.85</u> ✓	$\Delta =$ _____	Depth Correction ... .. <u>3.50</u> ✓
Summer freeboard = <u>1.57</u> ✓	Tons per inch immersion at summer load water line	Deduction for superstructures ... .. <u>20.28</u> ✓
Moulded draught (d) = <u>17.28</u> ✓	T = _____	Sheer correction ... .. <u>0.32</u> ✓
Deduction for Tropical freeboard <u>and addition for</u>	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction ... .. <u>0.12</u> ✓
Winter freeboard = $\frac{d}{4}$ inches = <u>4.32</u> ✓	<u>110</u> ✓	Correction for Thickness of Deck amidships ... .. _____
Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} =$ <u>5.76</u> ✓		Other corrections, scantlings, etc. ... .. _____
		<u>3.50</u> <u>20.72</u> <u>-17.22</u> ✓
		Summer Freeboard = <u>18.80</u> ✓

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

Timber	Summer	Timber	Summer
Tropical Fresh Water Line above Centre of Disc	<u>4.61</u> ✓	Tropical Fresh Water Freeboard ... ..	<u>257</u> ✓
„ Fresh Water Line „ „	<u>3.51</u> ✓	„ Fresh Water „ „	<u>367</u> ✓
„ Tropical Line „ „	<u>3.51</u> ✓	„ Tropical „ „	<u>367</u> ✓
„ Winter Line <u>above</u> „ „	<u>.95</u> ✓	„ Winter „ „	<u>623</u> ✓
„ Winter North Atlantic Line <u>below</u> „ „	<u>1.14</u> ✓	„ Winter North Atlantic „ „	<u>832</u> ✓
„ „ <u>above</u> „ „	<u>2.41</u> ✓		