

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "FALK"	Official Number	Nationality and Port of Registry GREEK STETTIN	Gross Tonnage 1459.	Date of Build 1911	Port of Survey ANTWERP.
Moulded Dimensions: Length 230.0' Breadth 36.25' Depth 17.5' (UPPER DR)					Date of Survey 4th Nov. & 7th 15th & 16th Nov. 1946
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature J. J. Javor.
Coefficient of fineness for use with Tables assume .741 (estimated)					Particulars of Classification Class contemplated 100 A1.

DEPTH FOR FREEBOARD (D). Moulded depth ... 17.50' Stringer plate ... (.38") Sheathing on exposed deck NONE $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 17.53	DEPTH CORRECTION. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(17.53 - 15.33) 1.769 = + 3.89"$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) = 36.25' Standard Round of Beam = $\frac{B \times 12}{50} = 8.70$ Ship's Round of Beam = 9 1/4" Difference = + .55 Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.55}{4} \times .1129 = -.02$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Deck enclosed ...	-	-	-	-	-
Overhang ...	-	-	-	-	-
R.Q.D. enclosed ...	75.00	75.00	4.0'	✓	75.00
" overhang ...	-	-	-	-	-
Bridge enclosed ...	101.00	101.00	7.0'	✓	101.00
" overhang aft ...	-	-	-	-	-
" overhang forward ...	-	-	-	-	-
F'cle enclosed (equiv) ...	26.09	27.09	7.0'	✓	27.09
" overhang (see over) ...	3.0'	-	7.0'	-	.95
Trunk aft ...	1.91	.95	-	-	-
" forward ...	-	-	-	-	-
Tonnage opening aft ...	-	-	-	-	-
" forward ...	-	-	-	-	-
Total ...	205.00	204.04	-	-	204.04

Standard Height of Superstructure **6.0'**
 " " R.Q.D. **3.867'**
 Deduction for complete superstructure **29.0'**
 Percentage covered $\frac{S}{L} = 82.13$
 " " $\frac{S_1}{L} = 88.71$
 " " $\frac{E}{L} =$
 Percentage from Table, Line A. ✓
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. **86.09** ✓
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than .2L (if required) ✓
 Deduction = $29 \times .8609 = - 24.97$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate, + 1.6"	Effective Ordinate	S	M	Product
A.P. ...	✓ 33.00	1		33.00	35"	36.60	1		36.60
$\frac{1}{8}$ L from A.P. ...	✓ 14.685	4		58.74	Should not be original value adding 1.6"	16.29	4		65.16
$\frac{3}{8}$ L " ...	✓ 3.63	2		7.26		4.03	2		8.06
Amidships ...	—	4		—		—	4		—
$\frac{3}{8}$ L from F.P. ...	✓ 7.26	2		14.52		8.58	2		17.16
$\frac{1}{8}$ L " ...	✓ 29.37	4		117.48		34.71	4		138.84
F.P. ...	✓ 66.00	1		66.00	78"	78.00	1		78.00
Total ...			✓	297.00				✓	343.82

Actual height of R.Q.D. = **4.000**
 Std " " " = **3.867**
 Mean actual sheer aft = **.133**
 Mean standard sheer aft = **.133**
 Mean actual sheer forward = **.133**
 Mean standard sheer forward = **.133**
 Length of enclosed superstructure forward of amidships = **> .1** ✓
 " " aft of " = **.5** ✓

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{46.82 - 44.56}{18} = -.79"$
 If limited on account of midship superstructure. **.3044** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **17.53'**
 Summer freeboard = **.59**
 Moulded draught (d) = **16.94'**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **4.24" = 108 mm**

Addition for Winter North Atlantic Freeboard (if required) =

6.24" = 158 mm

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

$T =$

Deduction = $\frac{\Delta}{40 T}$ inches

$\frac{d}{4} = 4.24"$

= 108 mm

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.741 + .68}{1.36} = \frac{1.421}{1.36}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

28.50
29.78

3.89
24.97
.79
.02

3.89
25.78
- 21.89

Summer Freeboard = 7.89 = 200 mm

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

Tropical Fresh Water Line above Centre of Disc	190 mm
Fresh Water Line " "	120 "
Tropical Line " "	70 "
Winter Line below " "	70 "
Winter North Atlantic Line " "	120 "

Tropical Fresh Water Freeboard minus	10 "
Fresh Water " "	60 "
Tropical " "	110 "
Winter " "	250 "
Winter North Atlantic " "	300 "

Freeboard assigned by the Germanischer Lloyd under the 1906 regulations being more favourable to the ship have been reassigned

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.

ANTWERP. 1191. 1924. GREEK. STETTIN. "FALK".
 330.0'. 36.32'. 17.2' (Upper Deck).
 36.32'. 17.20'. 17.20'.
 1A 001'.

Freeboard equivalent :- 5 = 29.00 ✓
 less $\frac{(16.5 + 18.5)}{2}$ 3.0
 27.5 ✓
 = 1.94 ✓
 27.09 ✓

4.0' 72.00' 72.00'
 7.0' 101.00' 101.00'
 3.0' 36.0' 36.0'

Trade of ship Ocean going.
 Names of sister ships ✓
 Builder's name and yard number Stettiner Oderwerke
 Owners Greek Government

Fee £ Feb 3090 -
 Exp. " 300. -

23. 11. 46.