

As a full scantling vessel.

Index. No. 35384.
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name SOMMELSDYK.	Official Number	Nationality and Port of Registry Dutch Rotterdam	Gross Tonnage	Date of Build 1939	Port of Survey
Moulded Dimensions: Length 142.049 ✓ Breadth 18.898 ✓ Depth 12.344 ✓					Date of Survey 8/9/39
Moulded displacement at moulded draught = 85 per cent. of moulded depth 20420 cu metres					Surveyor's Signature
Coefficient of fineness for use with Tables .425 ✓ (.431)					Particulars of Classification

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 12.344 ✓	(a) Where D is greater than Table depth (D-Table depth) R = 2.894 ✓	Moulded Breadth (B) 18.898 ✓
Stringer plate020	8.33 (12.364 - 9.440) 30 = +423	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{378 \text{ mm}}$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed) mm. (Table depth-D) R =	Ship's Round of Beam = 305 " ✓
Depth for Freeboard (D) = 12.364 ✓	If restricted by superstructures	Difference 73 " ✓
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{73}{4} \times .4316 = \mathbf{+13 \text{ mm.}}$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure 2.290 ✓
„ overhang ...						„ „ R.Q.D. ✓
R.Q.D. enclosed ...						Deduction for complete superstructure 1064 ✓
„ overhang ...						Percentage covered $\frac{S}{L} = \mathbf{26.84}$ ✓
Bridge enclosed ...	25.480 ✓	25.480 ✓	2.591 ✓		25.480 ✓	„ „ $\frac{S_1}{L} = \mathbf{26.84}$ ✓
„ overhang aft ...						„ „ $\frac{E}{L} = \mathbf{26.83}$ ✓
„ overhang forward ...						Percentage from Table, Line A. 13.41 ✓
Forecastle enclosed ...	12.650 ✓	12.650 ✓	2.286 ✓	2.286	12.628 ✓	(corrected for absence of forecastle (if required))
„ overhang ...						Percentage from Table, Line B. 14.00 ✓
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than 2L (if required) 13.41 + $\left(\frac{25.48}{28.41} \times 3.59\right) = 3.22 + 13.41 = 16.63$
Tonnage opening aft ...						Deduction = 1064 + 16.63 = -144 mm. ✓
„ „ forward						
Total ...	38.130 ✓	38.130 ✓			38.108 ✓	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P. ...	1434 ✓	1	1434 ✓	1250 ✓	1250 ✓	1	1250 ✓	Mean actual sheer aft = Deficient ✓
$\frac{1}{4}$ L from A.P. ...	638 ✓	4	2552 ✓	620 ✓	620 ✓	4	2480 ✓	Mean actual sheer forward = Deficient ✓
$\frac{3}{4}$ L „ ...	159 ✓	2	318 ✓	205 ✓	205 ✓	2	410 ✓	Mean standard sheer forward
Amidships ...		4				4		Length of enclosed superstructure forward of amidships =
$\frac{3}{4}$ L from F.P. ...	319 ✓	2	638 ✓	330 ✓	330 ✓	2	660 ✓	„ „ aft of „ = Does not apply ✓
$\frac{1}{4}$ L „ ...	1244 ✓	4	5108 ✓	1145 ✓	1145 ✓	4	4400 ✓	
F.P. ...	2844 ✓	1	2844 ✓	2630 ✓	2630 ✓	1	2630 ✓	
Total ...			12924 ✓				12130 ✓	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{494}{18} (.45 - .1342) = \mathbf{+24 \text{ mm.}}$ ✓

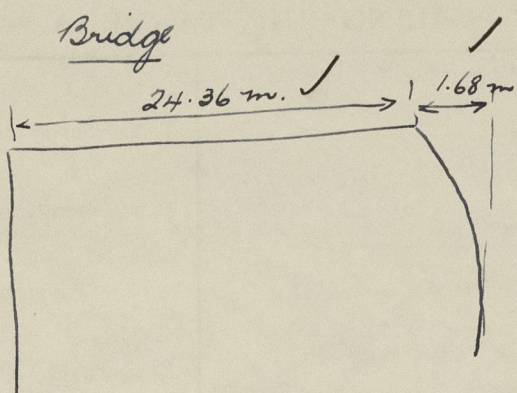
If limited on account of midship superstructure. If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

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
Depth to Freeboard Deck = 12.364 Ft.	$\Delta = \mathbf{18100 \text{ m}^3}$	
Summer freeboard = 3.000	Tons per inch immersion at summer load water line	
Moulded draught (d) = 9.364	$T = \mathbf{22.25 \text{ m}^3/\text{cm}}$	Depth Correction ... 423 ✓
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Deduction for superstructures ... 144 ✓
Winter freeboard = $\frac{d}{48}$ inches = 195 = 20 cms	20 cms.	Sheer correction ... 24 ✓
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction ... 13 ✓
		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		463 + 144 + 586 = 1093 ✓
		Summer Freeboard = 3001 ✓

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

Tropical Fresh Water Line above Centre of Disc ... 40	Tropical Fresh Water Freeboard ... 260 "
Fresh Water Line „ „ ... 20	Fresh Water „ „ ... 280 "
Tropical Line „ „ ... 20	Tropical „ „ ... 280 "
Winter Line below „ „ ... 20	Winter „ „ ... 320 "
Winter North Atlantic Line „ „ ... ✓	Winter North Atlantic „ „ ...

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.



fr. sp. $840 \times 29 \checkmark = 24.360 \checkmark$
 $840 \times 2 = \frac{1.68 \times 2}{3} \checkmark = \frac{1.120}{25.480} \checkmark$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation