

## SCANTLINGS.

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received .....

Index No. ....

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Ship's Name <i>Chantiers Navals de Bruges 34 and 35.</i>	Official Number	Nationality and Port of Registry	Gross Tonnage <i>7-100</i>	Date of Build	Port of Survey
Moulded Dimensions: Length <i>72.400 m</i>	Breadth <i>12.000 m</i>	Depth <i>4.750 m</i>			Date of Survey <i>3/1/57.</i>
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)					Particulars of Classification <i>100 A1 Contemplated.</i>
Coefficient of fineness for use with Tables	<i>.75 (assumed)</i>				

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	<i>4.750</i>	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	<i>12.000 m</i>
Stringer plate	<i>7.5 mm</i>			Standard Round of Beam = $\frac{B \times N}{50}$	<i>240 mm</i>
Wood Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	<i>833 (4.827-4.758) 18.28 = -11 mm</i>	Ship's Round of Beam	<i>240 mm</i>
$T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Difference	<i>0</i>
Depth for Freeboard (D) =	<i>4.758</i>			Restricted to	<i>240</i>
				Correction = $\frac{\text{Diff}^o}{4} \times \left( 1 - \frac{S}{L} \right)$	<i>47.011</i>

DEDUCTION FOR SUPERSTRUCTURES.				
Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>6.370</i>			<i>6.370</i>
" overhang				
R.Q.D. enclosed				
" overhang				
Bridge enclosed				
" overhang aft				
" overhang forward	<i>64.730</i>	<i>2.250</i>		<i>64.730</i>
Fore enclosed				
" overhang				
Trunk aft				
forward	<i>1.300</i>	<i>.385 x diff</i>		<i>.500</i>
Tonnage opening aft				
forward				
Total	<i>72.400</i>	<i>71.600</i>		<i>71.600</i>

Standard Height of Superstructure *1.830*

" " R.Q.D. *756*

Deduction for complete superstructure

Percentage covered  $\frac{S}{L} = 100$

" "  $\frac{S_i}{L} = 98.90$

" "  $\frac{E}{L} = 98.65$

Percentage from Table, Line A. *48*

(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 =  $756 \times .9865 = 746$

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<i>8571</i>	1	<i>8571</i>	<i>800</i>	<i>1220</i>	1	<i>1220</i>
$\frac{1}{2}L$ from A.P.	<i>3809</i>	4	<i>15236</i>	<i>350</i>	<i>543</i>	4	<i>2172</i>
$\frac{3}{4}L$	<i>952</i>	2	<i>1904</i>	<i>100</i>	<i>134</i>	2	<i>268</i>
Amidships	<i>0</i>	4	<i>0</i>	<i>0</i>	<i>0</i>	4	<i>0</i>
$\frac{3}{4}L$ from F.P.	<i>1905</i>	2	<i>3810</i>	<i>150</i>	<i>228</i>	2	<i>456</i>
$\frac{1}{2}L$	<i>7618</i>	4	<i>30472</i>	<i>750</i>	<i>921</i>	4	<i>3684</i>
F.P.	<i>17143</i>	1	<i>17143</i>	<i>1650</i>	<i>2070</i>	1	<i>2070</i>
Total			<i>77136</i>	<i>420</i>			<i>9870</i>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{2156}{18} \times .25 = -30 \text{ mm}$

If limited on account of midship superstructure.

Mean actual sheer aft = *Deficient.*

Mean standard sheer aft = *Deficient.*

Mean actual sheer forward = *Deficient.*

Mean standard sheer forward = *Deficient.*

Length of enclosed superstructure forward of amidships = *3.660*

" aft of " = *1.210*

" " = *9.870*

C.S.S./T.O.

Deduction for Tropical Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Corrected for Flush Deck (if required)	
Depth to Freeboard Deck = <i>4.758</i>		Tons per inch immersion at summer load water line		Correction for coefficient	<i>761</i>
Summer freeboard = <i>.051</i>		$\Delta =$		$\frac{.68 + .75}{1.36} = \frac{1.43}{1.36}$	<i>800</i>
Moulded draught (d) = <i>4.707</i>		Deduction = $\frac{\Delta}{40 T}$ inches			
Keel allowance =					
Extreme draught =					
Deduction for Tropical freeboard and addition for =					
Winter freeboard = $\frac{d}{4}$ inches =					
Addition for Winter North Atlantic Freeboard (if required) =					

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

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

...	...
...	...
...	...
...	...
...	...

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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.

CRS - 0	150
0 - 7	4.270
7 - 103	62.400
103 - FP	5.600 (measured)
	<u>72.420</u>

$$\frac{B_1 - b}{B_1} = \frac{6.5 - 4}{6.5} = .385$$

Trade of ship \_\_\_\_\_

Names of sister ships \_\_\_\_\_

Builder's name and yard number \_\_\_\_\_

Owners \_\_\_\_\_

Fee £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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