

*For scantlings only
(with R.Q.D. as Freeboard deck)*

Lloyd's Register of Shipping.

Index No. 396/10
(For London Office only.)

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Ria de el Ferrol</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build <i>5.8.11</i> <i>1.2.22</i> <i>7.11</i>	Port of Survey
Moulded Dimensions: Length <i>80 m</i> Breadth <i>12.49</i> Depth <i>7.11</i>					Date of Survey <i>7.7.47</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>77 (assumed)</i>					Particulars of Classification

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth <i>7.110</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>8.33(7.122 - 5.333) 20.20 = + 301 mm</i>	Moulded Breadth (B) <i>12.49 m</i>
Stringer plate <i>12</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>1.789</i>	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>250 mm</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <i>/</i>	Ship's Round of Beam = <i>250 mm</i>
Depth for Freeboard (D) = <i>7.122</i>		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>NIL</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed	<i>5.700</i>	<i>5.700</i>	<i>1.040</i>	<i>1.04/1.271</i>	<i>4.664</i>
" overhang					
Bridge enclosed					
" overhang aft	<i>52.400</i>	<i>52.400</i>	<i>1.040</i>	<i>1.04/1.868</i>	<i>29.173</i>
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<i>58.100</i>	<i>58.100</i>			<i>33.837</i>

Standard Height of Superstructure *1.868 m*

" " R.Q.D. *1.271 m*

Deduction for complete superstructure *820 mm*

Percentage covered $\frac{S}{L} =$ *72.63*

" " $\frac{S_1}{L} =$ *42.30*

" " $\frac{E}{L} =$ *42.30*

Percentage from Table, Line A. */*

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. *29.45*

(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required) */*

Deduction = *820 x 29.45 = - 242 mm*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$ "		2					2		
Amidships		4					4		
$\frac{2}{8}L$ from F.P.		2					2		
$\frac{1}{8}L$ "		4					4		
F.P.		1					1		
Total				<i>8282</i>					<i>10600</i>

Mean actual sheer aft = *.868*

Mean standard sheer aft = *.77*

Mean actual sheer forward = *.71*

Mean standard sheer forward = *.71*

Length of enclosed superstructure forward of amidships = *5*

" " aft of " = *7.1*

Correction = $\frac{\text{Difference between sums of products}}{\text{Length of superstructure}} \left(.75 - \frac{S}{2L} \right) = \frac{2318}{18} \left(.75 - \frac{3631}{18} \right) = - 50 \text{ mm}$

If limited on account of midship superstructure. *Yes - NIL*

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. */*

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	Correction for coefficient $\frac{.77 + .68}{1.36} = \frac{1.45}{1.36}$
Depth to Freeboard Deck = <i>8.162</i>	$\Delta =$	Depth Correction <i>301</i>
Summer freeboard = <i>2.045</i>	Tons per inch immersion at summer load water line	Deduction for superstructures <i>242</i>
Moulded draught (d) = <i>6.117</i>	T =	Sheer correction <i>-</i>
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction <i>-</i>
Winter freeboard = $\frac{d}{4}$ inches =		Correction for Thickness of Deck amidships <i>1040</i>
Addition for Winter North Atlantic Freeboard (if required) =		Other corrections, scantlings, etc. <i>-</i>
		<i>1341</i> <i>242</i> <i>+ 1099</i>
		Summer Freeboard = <i>2045</i>

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 " "