



# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR ~~STEAMER, SAILING SHIP~~ TANKER.)

Ship's Name <b>ISLAS ORCADAS</b>	Official Number ---	Nationality and Port of Registry <b>Argentine Buenos Aires</b>	Gross Tonnage <b>About 9800</b>	Date of Build <b>1951 3</b>	Port of Survey <b>Uddevalle</b>
Moulded Dimensions: Length <b>146.304 M.</b> Breadth <b>19.500 M.</b> Depth <b>10.820 Metres</b>					Date of Survey <b>Whilst building</b>
Freeboard Length <b>146.642 Metres to Centre Line of Rudder Stock.</b>					Surveyor's Signature <i>Hammelberg</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>20120 M<sup>3</sup></b>					Particulars of Classification <b>+100A1 Carrying Petroleum in bulk</b>
Coefficient of fineness for use with Tables <b>.765</b>					

Depth for Freeboard (D) <b>M.</b>	Depth correction.	Round of Beam correction.
Moulded depth <b>10.820</b>	(a) Where D is greater than Table depth (D - Table depth) R = $8.33(10.841 - 9.776) = +266$	Moulded Breadth (B) <b>19.500</b>
Stringer plate <b>.0205</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $1.065$	Standard Round of Beam = $\frac{B \times 12}{50} = 390$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = <b>400 mm.</b>
Depth for Freeboard (D) = <b>10.840</b>		Difference = <b>10</b>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{10}{4} \times 0.6518 = -2$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S) MM.	Equivalent Enclosed Length (S <sub>1</sub> )	Height MM.	Height Correction	Effective Length (E)	
Poop enclosed <i>Capin</i> <b>36553</b>	<b>36553</b>	<b>2440</b>	-	<b>36553</b>	Standard Height of Superstructure <b>2290 -/-</b>
» overhang					» » R.Q.D.
R.Q.D. enclosed					Deduction for complete superstructure <b>1067 -/-</b>
» overhang					Percentage covered $\frac{S}{L} =$
Bridge enclosed					» $\frac{S_1}{L} =$ <b>34.82</b>
» overhang aft					» $\frac{E}{L} =$
» overhang forward	<b>14686</b>			<b>14686</b>	Percentage from Table, Line A. TANKER <b>23.82</b>
F'cle enclosed	<b>14913</b>	<b>2440</b>	-	<b>14913</b>	(corrected for absence of forecastle [if required])
» overhang					Percentage from Table, Line B.
Trunk aft					(corrected for absence of forecastle [if required])
» forward					Interpolation for bridge less than 2L (if required)
Tonnage opening aft	<b>51239</b>			<b>51239</b>	Deduction = $1067 \times 23.82 = -277$
» forward	<b>51066</b>			<b>51066</b>	
Total	<b>51066</b>			<b>51066</b>	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P.	1476	1	1476	932	932	1	932	Mean actual sheer aft = Mean standard sheer aft = } Deficient.
1/6 L from A.P.	656	4	2624	101	101	4	404	
2/6 L »	164	2	328	0	0	2	0	Mean actual sheer forward = Mean standard sheer forward = } Deficient.
Amidships	-	4	-	0	-	4	-	
2/6 L from F.P.	328	2	656	0	0	2	0	Length of enclosed superstructure forward of amidships = } Deficient » » aft of » = } Deficient
1/6 L »	1311	4	5244	337	337	4	1348	
F.P.	2951	1	2951	1825	1825	1	1825	
Total			13279				4509	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{8770}{18} \times (.75 - .1741) = +281$

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	2108
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.765 + .68}{1.36} = 1.445 / 1.36$	2240
Depth to Freeboard Deck = <b>35.57</b>	$\Delta = 17288$	Depth Correction	266
Summer freeboard = <b>8.23</b>	Tons per inch immersion at summer load water line	Deduction for superstructures	276
Moulded draught (d) = <b>27.34</b>	T = <b>62.50</b>	Sheer correction	281
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.83 = 6 3/4"</b>	Deduction = $\frac{\Delta}{40 T}$ inches = <b>6.91</b>	Round of Beam correction	2
Addition for Winter North Atlantic Freeboard (if required) = <b>6.83 + 4.81 = 11.64 = 11 3/4"</b>	= <b>7"</b>	Correction for Thickness of Deck amidships	-
		Other corrections, scantlings, etc.	9
		Summer Freeboard =	2508

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

Tropical Fresh Water Line above Centre of Disc	13 3/4"	Tropical Fresh Water Freeboard	7 - 1
Fresh Water Line » »	7	Fresh Water »	7 - 7 3/4
Tropical Line » »	6 3/4	Tropical »	7 - 8
Winter Line below » »	6 3/4	Winter »	8 - 9 1/2
Winter North Atlantic Line » »	11 3/4	Winter North Atlantic »	9 - 12 1/2

