

Cloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Ship's Name "INVERDARCLE"	Official Number 159815	Nationality and Port of Registry British Dublin	Gross Tonnage 10000 9456	Date of Build 1938	Port of Survey Hamburg
Moulded Dimensions: Length 495.0 Breadth 67.0 Depth 34' 2"					Date of Survey 12th July 1938
Moulded displacement at moulded draught = 85 per cent. of moulded depth 20957 tons					Surveyor's Signature H. Young
Coefficient of fineness for use with Tables .761					Particulars of Classification +100 A1 "Carrying Petroleum in bulk." (untemplated).

Depth for Freeboard (D). Moulded depth ... 34' 2" Stringer plate ... 2 1/4"07 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.24	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(34.24 - 33.00) 3 = + 3.72$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures <input checked="" type="checkbox"/>	Round of Beam correction. Moulded Breadth (B) 67.00 $\text{Standard Round of Beam} = \frac{B \times 12}{50} = 16.08$ Ship's Round of Beam = 16' 8" Difference .04 EXCESS Restricted to <input checked="" type="checkbox"/> $\text{Correction} = \frac{\text{Diff}^*}{4} \times (1 - \frac{S_1}{L}) = \frac{.04}{4} \times .5756 = -.01$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	120.33	120.33	8'	<input checked="" type="checkbox"/>	120.33
" overhang ...	none				
R.Q.D. enclosed ...	"				
" overhang ...	"				
Bridge enclosed...	33.53	33.53	7' 3"	7.25/7.5	32.41
" overhang aft ...	none				
" overhang forward	none				
F'cle enclosed ...	56.23	56.23	7' 6"	<input checked="" type="checkbox"/>	56.23
" overhang ...	none				
Trunk aft ...	"				
" forward ...	"				
Tonnage opening aft ...	"				
" forward ...	"				
Total ...	210.09	210.09			208.97

Standard Height of Superstructure

7.50'

" " R.Q.D.

42"

Deduction for complete superstructure

Percentage covered $\frac{S}{L} = 42.44$ " " $\frac{S_1}{L} = 42.44$ " " $\frac{E}{L} = 42.21$ Percentage from Table, Line A. **Tanker 33.21**

(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 = $42 \times .3321 = -13.95$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	59.50	1	59.50	57.84	57.84	57.84	1	57.84	57.84
1/4 L from A.P. ...	26.48	4	105.92	27.0	27.0	27.0	4	108.00	108.00
1/2 L " ...	6.54	2	13.08	3.20	3.20	3.20	2	6.40	6.40
Amidships ...	-	4	-	0	-	-	4	-	-
3/4 L from F.P. ...	19.08	2	26.16	13.40	13.40	13.40	2	26.80	26.80
3/4 L " ...	52.96	4	211.84	52.32	52.32	52.32	4	209.28	209.28
F.P. ...	119.00	1	119.00	118.92	118.92	118.92	1	118.92	118.92
Total ...			535.50					527.24	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{.75} \right) = \frac{8.26}{18} (.75 - .2122) = +.25$

If limited on account of midship superstructure.

Mean actual sheer aft = **Deficient**Mean actual sheer forward = **Deficient**Length of enclosed superstructure forward of amidships = **Tanker.**" " aft of " = **Tanker.**

RETAIN

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **34.24**
 Summer freeboard = **6.79**
 Moulded draught (d) = **27.45**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.86 = 6 3/4**

Addition for Winter North Atlantic Freeboard (if required) = **6.86 + 4.95 = 11.81 = 11 3/4**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 19738$
 Tons per inch immersion at summer load water line
 $T = 66.87$

Deduction = $\frac{\Delta}{40 T}$ inches
 = **7.38**
 = **7 1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.761 + .68}{1.36} = 1.441$

	+	-
Depth Correction ...	3.72	-
Deduction for superstructures ...	-	13.95
Sheer correction25	-
Round of Beam correction...	-	.01
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	3.97	13.96

Summer Freeboard = **81.45**

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

Tropical Fresh Water Line above Centre of Disc ...	1' 2 1/4"	Tropical Fresh Water Freeboard ...	1' 2 1/4"
Fresh Water Line " " ...	7 1/2"	Fresh Water " " ...	7 1/2"
Tropical Line " " ...	6 3/4"	Tropical " " ...	6 3/4"
Winter Line below " " ...	6 3/4"	Winter " " ...	6 3/4"
Winter North Atlantic Line " " ...	11 3/4"	Winter North Atlantic " " ...	11 3/4"

19 JUL 1938

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.

Fee ~~RM.~~ 400. —

Traver Tankers, Ltd.

"Inverdargle."

Lloyd's Register
Foundation