

Amended assignment due to closing Forecastle.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. **36059**
(For London Office only).

Ship's Name "GLADONIA"	Official Number 164905	Nationality and Port of Registry British Goole	Gross Tonnage 359.97	Date of Build 1939	Port of Survey Date of Survey 9.3.45.
Moulded Dimensions: Length 140.35 Breadth 24.5 Depth 10.08 <i>To centre of main keel.</i>					Surveyor's Signature Particulars of Classification +100A1.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 612 tons					
Coefficient of fineness for use with Tables .727					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 10.08	(a) Where D is greater than Table depth (D - Table depth) R = (10.11 - 9.35) 1.079 = +.82"	Moulded Breadth (B) 24.5
Stringer plate03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 5.88$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	✓	Ship's Round of Beam = 6.00
Depth for Freeboard (D) = 10.11	If restricted by superstructures ✓	Difference .12
		Restricted to ✓
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.12}{4} \times .3242 = -.01.$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	27.07	27.07	7.0		27.07	Standard Height of Superstructure 6.00
„ overhang						„ „ R.Q.D. 3.269
R.Q.D. enclosed <i>IN WAY OF BRIDGE</i>	11.17	11.17	3.25	3.25	11.17	Deduction for complete superstructure 20.03
„ <i>IN WAY OF BRIDGE</i>	41.33	41.33			41.09	Percentage covered $\frac{S}{L} = 67.58$
Bridge enclosed						„ $\frac{S_1}{L} = 67.58$
„ overhang aft						„ $\frac{E}{L} = 67.41$
„ overhang forward						Percentage from Table, Line A. 58.60
Fore enclosed	15.28	15.28	6.0		15.28	(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 ...						Deduction = 20.03 x .586 = -11.74
„ „ forward						
Total	94.85	94.85			94.61	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	24.03	1		24.03	24	24.00	1		24.00
$\frac{1}{8}$ L from A.P. ...	10.695	4		42.78	10.75	10.75	4		43.00
$\frac{3}{8}$ L „ ...	2.64	2		5.28	2.75	2.75	2		5.50
Amidships	-	4		-	-	-	4		-
$\frac{3}{8}$ L from F.P. ...	5.29	2		10.58	5.4	5.40	2		10.80
$\frac{1}{8}$ L „ ...	21.39	4		85.56	21.75	21.75	4		87.00
F.P.	48.07	1		48.07	48.00	48.00	1		48.00
Total				216.30					218.30

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{2.00}{18} \left(\frac{75-.3379}{.4121} \right) = -.05$

If limited on account of midship superstructure.

*Yes. no allowance.*If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to ~~Freeboard~~ Deck = **13.36**
Summer freeboard = **3.56**
Moulded draught (d) = **9.80**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **2.45 = 2 $\frac{1}{2}$ "**

Addition for Winter North Atlantic Freeboard (if required) = **4 $\frac{1}{2}$ "**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 721$

Tons per inch immersion at summer load water line

$T = 7.14$

Deduction = $\frac{\Delta}{40T}$ inches

= **2.52 = 2 $\frac{1}{2}$ "**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **727.68**
1.36

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

	+	-
Depth Correction	.82	
Deduction for superstructures		11.74
Sheer correction		
Round of Beam correction		.01
Correction for Thickness of Deck amidships	39.00	
Other corrections, scantlings, etc.		
39.82	11.75	+28.07

Summer Freeboard = **42.81**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel Deck

Tropical Fresh Water Line above Centre of Disc ...	4' 4$\frac{1}{4}$"
Fresh Water Line " " ...	2$\frac{1}{2}$"
Tropical Line " " ...	2' 13$\frac{1}{4}$"
Winter Line below " " ...	2$\frac{1}{2}$"
Winter North Atlantic Line " " ...	4$\frac{1}{2}$"

Tropical Fresh Water Freeboard ...	3' 6$\frac{3}{4}$"
Fresh Water " " ...	3' 2$\frac{1}{4}$"
Tropical " " ...	3' 4$\frac{1}{4}$"
Winter " " ...	3' 5" (limited)
Winter North Atlantic " " ...	3' 9$\frac{1}{4}$"
Winter North Atlantic " " ...	3' 11$\frac{1}{4}$"