

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TAKORADIAN	Official Number 157533	Nationality and Port of Registry BRITISH FREETOWN	Gross Tonnage 5452	Date of Build 1937	Port of Survey
Moulded Dimensions: Length 45.85 Breadth 56.5 Depth 38.17					Date of Survey 26.7.43
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature
Coefficient of fineness for use with Tables .774 (Estimated)					Particulars of Classification

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 38.17	(a) Where D is greater than Table depth (D - Table depth) R = 31.50	Moulded Breadth (B) 56.5
Stringer plate65	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 10.50	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{13.56}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 13.40
Depth for Freeboard (D) = 38.22		Difference .16
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.16}{4} \times .905 = \mathbf{+.04}$

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 ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
Fore enclosed ...	39.5	39.5	7.5	✓	39.5
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	39.5	39.5			39.5

Standard Height of Superstructure **7.5**

„ „ R.Q.D. **42.00**

Deduction for complete superstructure

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

„ „ $\frac{S_1}{L} =$ } **9.50**

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. **4.75**

(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 = $42.00 \times .0475 = \mathbf{-1.99}$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	51.59	1	51.59	59	59	1	59
$\frac{1}{4}$ L from A.P. ...	22.955	4	91.82	27	27	4	108
$\frac{2}{4}$ L „ ...	5.67	2	11.34	8	8	2	16
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{4}$ L from F.P. ...	11.35	2	22.70	14	14	2	28
$\frac{1}{4}$ L „ ...	45.91	4	183.64	53	53	4	212
F.P. ...	103.17	1	103.17	119	119	1	119
Total ...			464.26				542

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward = } **Excess**

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

„ „ aft of „ = } **Nil.**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{77.74}{18} (.75 - .0475) = \mathbf{-3.03}$

If limited on account of midship superstructure. **Yes. Nil.** .7025 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 = **38.22**

Summer freeboard = **13.35**

Moulded draught (d) = **24.87**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.22 = 6 $\frac{1}{4}$**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

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

$\frac{1}{4} = 6\frac{1}{2}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.774 + .68}{1.36} = \mathbf{.454}$

	+	-
Depth Correction ...	31.50	-
Deduction for superstructures ...	-	1.99
Sheer correction04	-
Round of Beam correction04	-
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. to correct to a summer moulded draught	48.62	-
	80.16	1.99
		+ 78.17
		Summer Freeboard = 160.25

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

Tropical Fresh Water Line above Centre of Disc ...	12$\frac{3}{4}$
Fresh Water Line „ „ ...	6$\frac{1}{4}$
Tropical Line „ „ ...	6$\frac{1}{4}$
Winter Line below „ „ ...	6$\frac{1}{4}$
Winter North Atlantic Line „ „ ...	✓

Tropical Fresh Water Freeboard ...	13$\frac{1}{4}$
Fresh Water „ „ ...	12$\frac{3}{4}$
Tropical „ „ ...	12$\frac{3}{4}$
Winter „ „ ...	13$\frac{1}{4}$
Winter North Atlantic „ „ ...	✓