

CHARTERED BY HILL
37293
CASTLE HILL
37618

AMENDED COMPUTATION
AS OPEN SHELTER DECKER.

Index No. _____
(For London Office only.)

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TRAIL	Official Number 180050	Nationality and Port of Registry BRITISH SUNDERLAND	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 424.51' Breadth 56.00' Depth 28.67' To CR of R.S.					Date of Survey 10.1.50
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12577 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .760					Particulars of Classification +100 A1, with freeboard.

DEPTH FOR FREEBOARD (D).

Moulded depth **28.67**

Stringer plate **.03**

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **28.70**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D-Table depth) R =
(28.70-28.30) 3 = +1.20"

(b) Where D is less than Table depth (if allowed)
(Table depth-D) R =

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **56.00'**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **13.44"**

Ship's Round of Beam = **14.00"**

Difference **.56"**

Restricted to

Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.56 \times .006}{4} = .00075$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	33.75	33.75	9.0	✓	33.75
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	385.60	385.60	9.0	✓	385.60
„ overhang aft					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft	5.16	2.58			2.58
„ „ forward					
Total	424.51	421.93			421.93

Standard Height of Superstructure **7.50'**

„ „ R.Q.D. **✓**

Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} = 100.00$

„ „ $\frac{S_1}{L} =$ **99.40**

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. **99.26**
(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 x .9926 = -41.69"**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	52.48	1	52.48	23.00	41.00	1	41.00
$\frac{1}{2}$ L from A.P.	23.34	4	93.36	✓	18.00	4	72.00
$\frac{3}{8}$ L „	5.77	2	11.54	✓	4.51	2	9.02
Amidships	✓	4	✓	✓	✓	4	✓
$\frac{3}{8}$ L from F.P.	11.54	2	23.08	✓	10.89	2	21.78
$\frac{1}{2}$ L „	46.675	4	186.70	7.00	25.00	4	100.00
F.P.	104.90	1	104.90	81.00	99.00	1	99.00
Total			472.03	+18.00			342.80

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{129.23}{18} \times .25 = +1.80"$

If limited on account of midship superstructure. ✓

Actual Tween Deck Height = **9.00'**

Standard „ = **7.50'**

Excess = **1.50'**

= **18"**

Mean actual sheer aft
Mean standard sheer aft = } Deficient.

Mean actual sheer forward
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } c.s.s.

„ „ aft of „ = }

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **28.70**

Summer freeboard = **3.77**

Moulded draught (d) = **24.93**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.23 = 6 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 = $\frac{\Delta}{40 T}$ inches

= **6 3/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

79.20
83.86

	+	-
Depth Correction	1.20	✓
Deduction for superstructures	✓	41.69
Sheer correction	1.80	✓
Round of Beam correction	✓	✓
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc.	✓	✓
	3.00	41.69
Summer Freeboard		45.17

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

Tropical Fresh Water Line above Centre of Disc **13 3/4"**

Fresh Water Line „ „ **6 3/4"**

Tropical Line „ „ **6 1/4"**

Winter Line below „ „ **6 1/4"**

Winter North Atlantic Line „ „

Tropical Fresh Water Freeboard

Fresh Water „

Tropical „

Winter „

Winter North Atlantic „