

SOUTHERN GEM
No 41411Index No. 43162
(For Index Office only)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

12 SEP 1951

Ship's Name STAR XII, ex JACOBUS	Official Number	Nationality and Port of Registry Norway Sandefjord	Gross Tonnage 617	Date of Build 1937	Port of Survey Bremen
Moulded Dimensions: Length 162' - 1" Breadth 31' - 0" Depth 18' - 9"					Date of Survey September, 1951
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1190 tons					Surveyor's Signature <i>A. H. Bree</i>
Coefficient of fineness for use with Tables (.52 ACTUAL) .68					Particulars of Classification BS* (Reclass.)

DEPTH FOR FREEBOARD (D).

Moulded depth **18' - 9"** ... **18.750**

Stringer plate **.315"** ... **.026**

Sheathing on exposed deck **.064**

$T \left(\frac{L-S}{L} \right) = \frac{.21 \times 47.64}{162.08}$ **.06**

Depth for Freeboard (D) = **18.84**

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) R = **(18.84 - 10.81) 1.239 = + 9.95"**

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = **8.03**

If restricted by superstructures ☒

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **31.0"**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{31.0 \times 12}{50} = \mathbf{7.44"}\mathbf{}$

Ship's Round of Beam = **7.88"**

Difference **+ .44"**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.44}{4} \times 1 = \mathbf{-.11"}\mathbf{}$

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 ...					
Forecastle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...					

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure _____

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

" " $\frac{S_1}{L} =$ _____

" " $\frac{E}{L} =$ _____

Percentage from Table, Line A. (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 = _____

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	26.21	1	26.21	62"	62.00	1	62.00
$\frac{1}{2}L$ from A.P. ...	11.66	4	46.64	27.5"	27.50	4	110.00
$\frac{2}{3}L$ " ...	2.88	2	5.76	6.85"	6.85	2	13.70
Amidships ...	✓	4	✓	0	✓	4	✓
$\frac{2}{3}L$ from F.P. ...	5.77	2	11.54	4.54"	4.54	2	9.08
$\frac{1}{2}L$ " ...	23.33	4	93.32	25.55"	25.55	4	102.20
F.P. ...	52.42	1	52.42	99.0"	99.00	1	99.00
Total ...			235.89				395.98

Mean actual sheer aft = _____

Mean standard sheer aft = _____

Mean actual sheer forward = _____

Mean standard sheer forward = _____

Length of enclosed superstructure forward of amidships = $\frac{L}{L}$ _____

" " aft of " = _____

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{160.09}{18} \times .75 = \mathbf{-6.67"}\mathbf{}$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. YES = **2.43"**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.
Depth to Freeboard Deck = **18.78**

Summer freeboard = **2.21**

Moulded draught (d) = **16.57**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **4.19 = 4"**

Addition for Winter North Atlantic Freeboard (if required) = **4 + 2 = 6"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = \mathbf{1130}$

Tons per inch immersion at summer load water line $T = \mathbf{9.96 \text{ tons}}$

Deduction = $\frac{\Delta}{40 T}$ inches = **3"**

TABULAR FREEBOARD corrected for Flush Deck (if applicable) **17.19 + 2.43**

Correction for coefficient **NIL**

Depth Correction ... **9.95** ✓

Deduction for superstructures ... **✓**

Sheer correction ... **✓ 2.43**

Round of Beam correction ... **✓ 1.11**

Correction for Thickness of Deck amidships ... **✓ .72**

Other corrections, scantlings, etc. ... **✓**

9.95 3.26 + 6.69

Summer Freeboard = **26.31**

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

Tropical Fresh Water Line above Centre of Disc ...	7 1/2	190	Tropical Fresh Water Freeboard	1 1/2	673
Fresh Water Line " " ...	3	76	Fresh Water " " ...	1	483
Tropical Line " " ...	4 1/2	114	Tropical " " ...	1 1/2	597
Winter Line below " " ...	4	102	Winter " " ...	1	559
Winter North Atlantic Line " " ...	6	152	Winter North Atlantic " " ...	2 1/2	825

B.C. freeboards assigned as for "Southern Gem" (SISTER VESSEL)

A new 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.

Trade of ship Whaling Service

Names of sister ships "SOUTHERN GEM", Bremer Vulkan yard No.752

Builder's name and yard number Bremer Vulkan Yard No.751

Owners Hvalfangsselskapet Rosshavet, Sandefjord

Fee £ 25

See B.M.N. 5/1/52 with H.L.



© 2020

Lloyd's Register
Foundation