

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "AMAZONE" ex. "Gudrun Torm"	Official Number 9502	Nationality and Port of Registry Swedish Malmö.	Gross Tonnage 1566	Date of Build 1924	Port of Survey Trelleborg.
Moulded Dimensions: Length 75590 mm. Breadth 11580 mm. Depth 5335/5030 mm. 76.007. AFT SIDE RUDDER POST TO FORE SIDE STEW.					Date of Survey March, 1955.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3091 METRIC tons					Surveyor's Signature <i>L. J. J. J.</i>
Coefficient of fineness for use with Tables. 455					Particulars of Classification BS.

DEPTH FOR FREEBOARD (D).

Moulded depth ... 5335

Stringer plate ... 10mm.

Sheathing on exposed deck 2 1/2"

$T \left(\frac{L-S}{L} \right) = \text{NONE ON FREEBOARD DECK}$

Depth for Freeboard (D) = 5345

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) R =
8.33(5.345-5067) 19.19 = 44mm.

(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) 11580

Standard Round of Beam = $\frac{B \times 12}{50} = 232$

Ship's Round of Beam = 230mm.

Difference 2

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2}{4} \times .1458 = \text{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	4985	4985	2.120	✓	4985
" overhang ...					
R.Q.D. enclosed ...	23,400	23,400	1.220	✓	23400
" overhang ...					
Bridge enclosed ...	29,400	26,460	2.135	✓	26460
" overhang aft ...					
" overhang forward ...					
Fore enclosed EQUIV. ...	10,084	10,084	2.145	✓	10,084
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	67,972	64,932			64,932

Standard Height of Superstructure 1930mm.

" " R.Q.D. 129mm.

Deduction for complete superstructure 786mm.

Percentage covered $\frac{S}{L} = 89.30$

" " $\frac{S_1}{L} = 85.42$

Percentage from Table, Line A. 82.02

(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 = $786 \times .8202 = 645mm$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	887	1	887	720	720	1	720
1/2 L from A.P. ...	394	4	1576	230	230	4	920
1/2 L " ...	98	2	196	15	15	2	30
Amidships ...	✓	4	✓	✓	✓	4	✓
1/2 L from F.P. ...	197	2	394	290	218	2	436
1/2 L " ...	788	4	3152	960	872	4	3488
F.P. ...	1774	1	1774	2240	1963	1	1963
Total ...			7979	✓			7557

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{422}{18} \left(\frac{.75 - .4465}{1} \right) = + 7mm$

If limited on account of midship superstructure.

Mean actual sheer aft = 0.4mm 61.88%

Mean standard sheer aft

Mean actual sheer forward = 2.2mm

Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

" " aft of " =

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 5345

Summer freeboard = 268

Moulded draught (d) = 5077

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 106mm.

Addition for Winter North Atlantic Freeboard (if required) = $106 + 51 = 157mm$

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

$\frac{d}{4} = 106$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{681.755}{136} = \frac{1435}{136}$

	+	-
Depth Correction ...	44	✓
Deduction for superstructures ...	✓	645
Sheer correction ...	7	✓
Round of Beam correction ...	✓	✓
Correction for Thickness of Deck amidships ...	✓	✓
Other corrections, scantlings, etc. ...	✓	✓
	51	645

Summer Freeboard = 268mm.

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

AS PREVIOUSLY	Tropical Fresh Water Line above Centre of Disc	211mm
ASSIGNED BY	Fresh Water Line	106mm
DANISH AUTHORITY.	Tropical Line	105mm
	Winter Line below	105mm
	Winter North Atlantic Line	156mm

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

Amazona.

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.

Ship Amazona

Standard		
884	1	884
394	3	1182
98	3	294
0	1	0
		<u>2363</u>

Ship forward

0	1	0
194	3	591
788	3	2364
1444	1	<u>1444</u>
		<u>4729</u>

Actual

720	1	720
230	3	690
15	3	45
0	1	0
		<u>1455</u>

$$\frac{1455}{2363} = .6158 \quad \checkmark$$

Actual

0	1	0
290	3	870
960	3	2880
2066	1	<u>2066</u>
		<u>5816</u>
		<u>4729</u>
		Excess 1087

$$\text{Allowable Excess} = \left(\frac{61.58 - 50.00}{25.00} \right) 1087 = \frac{11.58}{25} \times 1087 = 603 \quad \checkmark$$

$$\text{Factor} = \frac{4729 + 603}{4729} = \frac{5232}{4729} \quad \checkmark$$

Allowable Shear.

Standard

0	1	0
194	3	591
788	3	2364
1444	1	<u>1444</u>
		<u>4729</u>

$$\text{FORECASTLE} = 9.825 \quad \checkmark$$

$$+ \frac{3.40}{104} \times 800 = \frac{262}{10.087}$$

Trade of ship All seas.

Names of sister ships ---

Builder's name Howaldtswerke, Kiel.

Owners Rederi A.-B. Malmöhus, Malmö.

Fee Kr. 290:-

Trav. Exp. " 57:85.



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