

## Lloyd's Register of Shipping.

Index No. 43427  
(For London Office only).

## SURVEYS FOR FREEBOARD.

27 FEB 1952

DONA SELINA (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"ASTRID ONSTAD"</b>	Official Number <b>2022</b>	Nationality and Port of Registry <b>Swedish Kungsbacka</b>	Gross Tonnage <b>About 14900</b>	Date of Build <b>1951 3</b>	Port of Survey <b>Gothenburg</b>
Moulded Dimensions: Length <b>170.835 M.</b> Breadth <b>22.707 M.</b> Depth <b>12.877 M.</b>					Date of Survey <b>Whilst building</b>
Freeboard Length <b>171.085 M.</b> (to C.L. of Rudder Stock)					Surveyor's Signature <b>Hans Blom</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>33950 M<sup>3</sup></b>					Particulars of Classification <b>+100A1</b>
Coefficient of fineness for use with Tables <b>.798</b>					Carrying Petroleum in Bulk

Depth for Freeboard (D). Moulded depth ..... <b>12.877</b> Stringer plate ..... <b>.026</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>12.903</b>	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = <b>8.33 (12.903 - 11.406) 30 = + 374 -/-</b> <b>1.497</b> (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) Standard Round of Beam = $\frac{B \times 302}{50} =$ <b>22707 MM.</b> Ship's Round of Beam = <b>454 MM.</b> Difference = <b>450 MM.</b> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{4}{4} \times .6561 = +1 -/-$
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) M.	Equivalent Enclosed Length (S <sub>1</sub> ) M.	Height M.	Height Correction	Effective Length (E)
Poop enclosed (see sketch)	35950	35.950	2440	-	35.950
» overhang					
R.Q.D. enclosed					
» overhang					
Bridge enclosed					
» overhang aft					
» overhang forward					
Fore enclosed	22895	22.895	2440	-	22.895
» overhang					
Trunk aft					
» forward					
Tonnage opening aft					
» forward					
Total	58.845	58.845			58.845

Standard Height of Superstructure ..... **2.290 -**

» » R.Q.D. ....

Deduction for complete superstructure ..... **1067 -/-**

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

» »  $\frac{S_1}{L} =$  } **34.39**

» »  $\frac{E}{L} =$

Percentage from Table, Line A. TANKER ..... **25.39**  
(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 = **1067 x 25.39 = - 271 -/-**

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ....	1679	1	1679	1158	1158	1	1158
1/6 L from A.P. ...	746	4	2984	86	86	4	344
2/6 L » ...	187	2	374	0	0	2	0
Amidships .....	-	4	-	0	-	4	-
2/6 L from F.P. ...	373	2	746	0	0	2	0
1/6 L » ...	1492	4	5968	583	583	4	2332
F.P. ....	3358	1	3358	2200	2200	1	2200
Total ...			15109				6034

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{9075 (.75 - .1720)}{18} = +291 -/-$

If limited on account of midship superstructure.

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

Mean actual sheer forward =  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = } **Tanker.**  
L aft of » =

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **12.903**

Summer freeboard = **3.184**

Moulded draught (d) = **9.719**

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{48} \text{ inches} =$  **202 -/-**

Addition for Winter North Atlantic Freeboard (if required) = **202 + 140 = 342 -/-**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  **30182**

Tons per inch immersion at summer load water line

$T =$  **87.29**

Deduction =  $\frac{\Delta}{40 T}$  inches = **8.64"**

= **219 -/-**

TABULAR FREEBOARD (corrected for Flush Deck (if required))

Correction for coefficient	<b>798 + 68 = 1.478 / 1.36</b>	
Depth Correction	<b>374</b>	<b>-</b>
Deduction for superstructures	<b>271</b>	<b>-</b>
Sheer correction	<b>291</b>	<b>-</b>
Round of Beam correction	<b>1</b>	<b>-</b>
Correction for Thickness of Deck amidships	<b>-</b>	<b>-</b>
Other corrections, scantlings, etc.	<b>-</b>	<b>-</b>
	<b>666</b>	<b>271</b>

Summer Freeboard = **3184**

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

Tropical Fresh Water Line above Centre of Disc	<b>421 -/- 162"</b>
Fresh Water Line » »	<b>219 -/- 8 1/2"</b>
Tropical Line » »	<b>202 -/- 8 1/2"</b>
Winter Line below » »	<b>202 -/- 8 1/2"</b>
Winter North Atlantic Line » »	<b>342 -/- 13 1/2"</b>

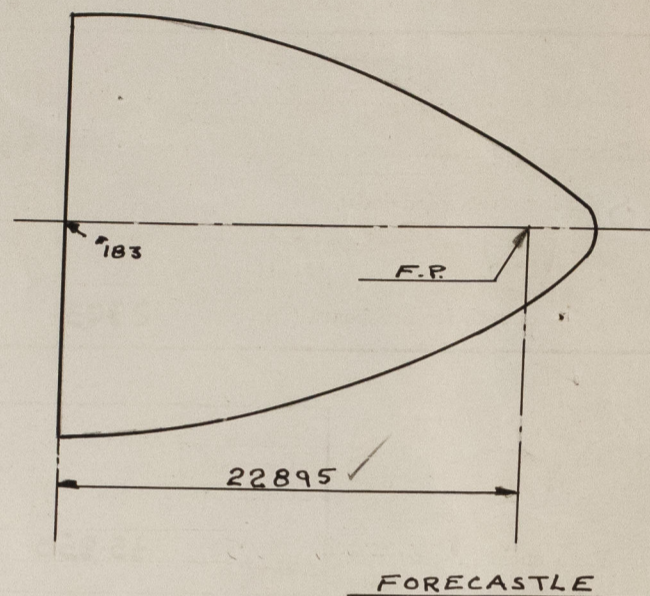
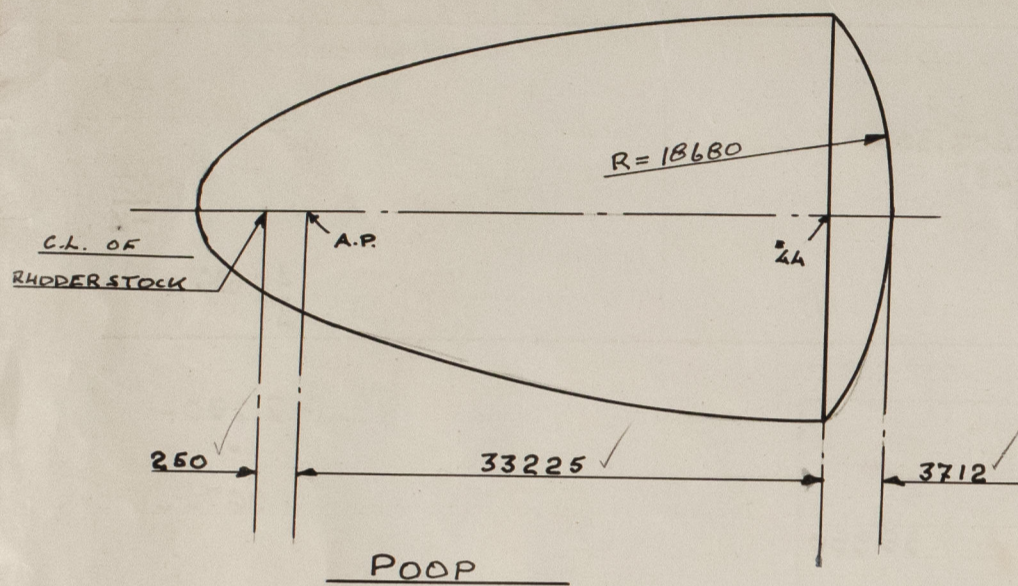
Tropical Fresh Water Freeboard	<b>2763</b>
Fresh Water »	<b>2965</b>
Tropical »	<b>2982</b>
Winter »	<b>3386</b>
Winter North Atlantic »	<b>3526</b>

Astrid Onstad Dona Selina

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.

Displacements and tons per inch immersion at a draught of 75 %, 85 % and 95 % of moulded depth.

<u>Draught.</u>	<u>Displacement.</u>	<u>Tons per inch.</u>
75 %	29970	87.20
85 %	34440	89.17
95 %	39090	90.95



Length at side = 33.475  
+  $\frac{2}{3} \times 3712 = 2.475$

35.950 = Equip Encl

Trade of ship International, Tanker.

Names of sister ships M/T "ATLANTIC QUEEN", AB Götaverken's Yard No. 628 and "MARGARET ONSTAD", Yard No. 646.

Builder's name and yard number AB Götaverken, Gothenburg, Yard No. 660

Owners Rederi AB Monacus, Kungsbacka.

Fee Kr. ---



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