

127 MAY 1958

Rpt. C.11 (Comp.)

For LONDON OFFICE ONLY

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR ~~STEAMER~~ ~~SAILING SHIP~~ TANKER)

Received
 Index No.
 Govt. Copy
 Owners C11

Ship's Name "SIGNE INGELSSON"	Official Number 9849	Nationality and Port of Registry Norwegian Swedish Helsingborg. Bergen	Gross Tonnage 12.645 12615	Date of Build 1958-7	Port of Survey Gothenburg.
Moulded Dimensions: Length 161.540 m. Breadth 21.640 m. Depth 12.395 m.					Date of Survey Whilst building.
Freeboard Length 161.790 metres to the Centre Line of the Rudder Stock					Surveyor's Signature <i>M. S. Lund</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29120 m³					Particulars of Classification +100A1 Carrying Petroleum in Bulk.
Coefficient of fineness for use with Tables .789					

DEPTH FOR FREEBOARD (D). m.	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 12.395	(a) Where D is greater than Table depth (D-Table depth) R = 8.33(12.420-10.786)30 = +408 mm.	Moulded Breadth (B) = 21.64
Stringer plate025	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 1.634	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{433}$
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 330
Depth for Freeboard (D) = 12.420		Difference = 103
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right) = \frac{103}{4} \times .6851 = \mathbf{+18 mm.}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height mm.	Height Correction	Effective Length (E)
Poop enclosed <i>equiv.</i>	33.705	33.705	2555	—	33.705
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	17.245	17.245	3395	—	17.245
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	50.950	50.950			50.950

Standard Height of Superstructure **2.290 m.**

" " R.Q.D. **---**

Deduction for complete superstructure **1067 mm.**

Percentage covered $\frac{S}{L} = \mathbf{31.49}$

" " $\frac{S_1}{L} = \mathbf{31.49}$

" " $\frac{E}{L} = \mathbf{31.49}$

Percentage from Table, ~~Line A~~ Tanker **22.49**

~~(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 .2249 = -240 mm.**

SHEER CORRECTION.

Station	Standard Ordinate mm.	S M	Product	Actual Ordinate mm.	Effective Ordinate	S M	Product
A.P.	1602	1	1602	205	994	1	994
$\frac{1}{4}L$ from A.P.	712	4	2848	10	64	4	256
$\frac{2}{4}L$ "	178	2	356	0	0	2	0
Amidships	0	4	0	0	0	4	0
$\frac{3}{4}L$ from F.P.	356	2	712	0	0	2	0
$\frac{1}{4}L$ "	1423	4	5692	11	11	4	44
F.P.	3203	1	3203	400	400	1	400
Total			14413				1694

Mean actual sheer aft = **Deficient**

Mean standard sheer aft =

Mean actual sheer forward = **Deficient**

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **Tanker**

" " aft of " = **Tanker**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{12.719}{18} (.75 - .1575) = \mathbf{+419 mm.}$

If limited on account of midship superstructure. **.5925** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

915 mm. below **Ex m.**

Depth to Freeboard Deck = **11.505**

Summer freeboard = **2.283**

Moulded draught (d) = **9.222**

Keel allowance = **---**

Extreme draught = **---**

Deduction for Tropical freeboard and addition for = **---**

Winter freeboard = $\frac{d}{48} = \mathbf{192 mm.}$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = \mathbf{25416}$

Tons per inch immersion at summer load water line

$T = \mathbf{78.37}$

Deduction = $\frac{\Delta}{40 T} = \mathbf{8.11" = 206 mm.}$

TABULAR FREEBOARD ~~corrected for Fresh Water~~

Correction for coefficient $\frac{.789 + .68}{1.36} = \mathbf{1.469}$

Depth Correction ... **408**

Deduction for superstructures ... **240**

Sheer correction ... **419**

Round of Beam correction ... **18**

Correction for ~~position~~ of Deck amidships ... **915**

Other corrections, scantlings, etc. ... **---**

2401

2593

845 1155 - 310

Summer Freeboard = **2283.**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck

Tropical Fresh Water Line above Centre of Disc **153/4 398 mm.**

Fresh Water Line " **8 206 mm.**

Tropical Line " **7 192 mm.**

Winter Line below " **7 192 mm.**

Winter North Atlantic Line " **12 327 mm.**

Tropical Fresh Water Freeboard **6-2 1885 mm.**

Fresh Water " **6-9 2077 mm.**

Tropical " **6-10 2091 mm.**

Winter " **8-1 2475 mm.**

Winter North Atlantic " **8-6 2610 mm.**

23 JUN 1958

Signe Ingelsson.

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:

<u>Draught:</u>	<u>Tons Displacement:</u>	<u>Tons per inch:</u>
75%	25650	78.46
85%	29550	80.05
95%	33540	81.33

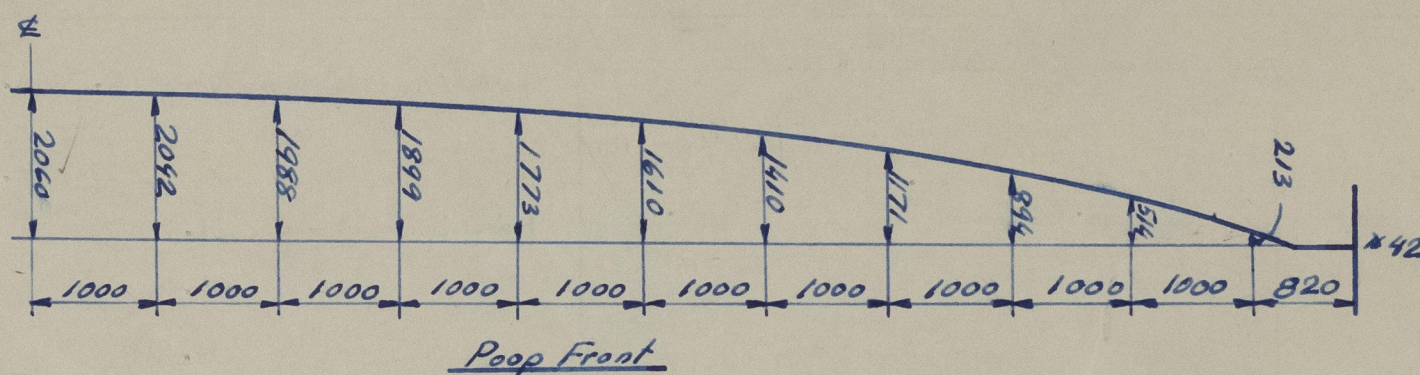
Poop:

Length at Side
 $\frac{2}{3} \times 2060 \times \frac{10.520}{10.820}$
 Equivalent length

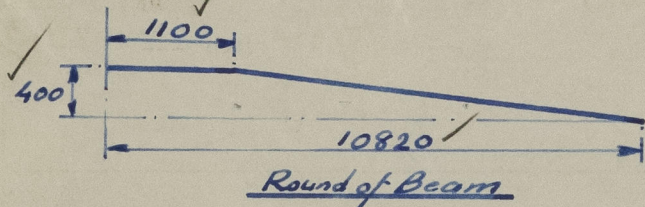
32.370 ✓
 1.335 ✓
 32.370 ✓
 26.965
 5.405 ✓

Sheer aft:

Actual Height of Poop = 2555 (at fore end)
 Standard height of Poop = 2290
 \therefore Excess at A.P. = 265 ✓
 $\&$ Excess at $\frac{1}{6}$ L from A.P. = $265 \times \left(\frac{5.405}{32.370}\right)^2 = 7 \text{ mm.}$
 Actual Height of Poop at A.P. = 3079
 Actual Height of Poop at $\frac{1}{6}$ L = 2602
 Minimum Height at forward end = 2555



\therefore Sheer at A.P. = $205 + 265 + 524 = 994$ ✓
 $\&$ sheer at $\frac{1}{6}$ L from A.P. = $10 + 7 + 47 = 64$ ✓



Equivalent Camber.

$$\frac{(1.100 \times .400) + (9.720 \times .200)}{10.820} \times \frac{3}{2}$$

$$\frac{.440 + 1.944}{10.820} \times \frac{3}{2} = 330 \text{ mm. } (331 \text{ mm})$$

Trade of ship International, Tanker

Names of sister ships "Marieborg" and "Harry R. Trapp" A.-B. Götaverken Yard Nos. 709 resp. 717.

Builder's name and yard number A.-B. Götaverken, Gothenburg, Yard No. 728. *ED*

Owners A.-B. Transmarin, Helsingborg, Sweden.

Fee £

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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