

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name S/S "SVANÖ" ex "Svend Pii"	Official Number	Nationality and Port of Registry Swedish. Hernösand.	Gross Tonnage 1976	Date of Build 1923-8	Port of Survey Elsinore (Copenhagen).
Moulded Dimensions: Length 276'5" Breadth 42'0" Depth 20'5"					Date of Survey 8th Oct. 1951.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1640 tons					Surveyor's Signature H. D. Lydersen.
Coefficient of fineness for use with Tables .75 (From previous Com.)					Particulars of Classification BS*

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 20.42	(a) Where D is greater than Table depth (D-Table depth) R = (20.46 - 18.43) 2.126 = + 4.32" ✓	Moulded Breadth (B) 42.0'
Stringer plate .44"04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 2.03 ✓	Standard Round of Beam = $\frac{B \times 12}{50} = 10.08$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	✓ If restricted by superstructures ✓	Ship's Round of Beam = 10.5" ✓
Depth for Freeboard (D) = 20.46		Difference .42 ✓
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.42}{4} \times .1592 = -.02"$ ✓

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	216.09	199.19	7.0'	✓	199.19
„ overhang aft					
„ overhang forward					
Fore enclosed	31.34	31.34	7.5'	✓	31.34
„ overhang	3.82	1.91			1.91
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	251.25	232.44			232.44

Standard Height of Superstructure **6.26'** ✓

„ „ R.Q.D. ✓

Deduction for complete superstructure **33.64"** ✓

Percentage covered $\frac{S}{L} = 90.89$ ✓

„ „ $\frac{S_1}{L} = 84.08$ ✓

„ „ $\frac{E}{L} =$

Percentage from Table, Line A & B **80.36** ✓
(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 = **33.64 × 80.36 = - 27.03"** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	37.64	✓	1	37.64	38.75	38.75	1		38.75
$\frac{1}{8}L$ from A.P.	16.75	✓	4	67.00	16.75	16.75	4		67.00
$\frac{2}{8}L$ „	4.14	✓	2	8.28	3.63	3.63	2		7.26
Amidships	✓		4	✓	0	✓	4		✓
$\frac{3}{8}L$ from F.P.	8.28	✓	2	16.56	6.50	6.50	2		13.00
$\frac{4}{8}L$ „	33.50	✓	4	134.00	31.13	31.13	4		124.52
F.P.	75.28	✓	1	75.28	76.50	76.50	1		76.50
Total				338.76					327.03

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{11.73}{18} \left(.75 - \frac{.4545}{2} \right) = + .19"$ ✓

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 = } DEFICIENT SHEER. ✓

„ „ aft of „ = }

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

Depth to Freeboard Deck = **20.46** Ft.
Summer freeboard = **1.44**
Moulded draught (d) = **19.02**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **4.75" = 121 m/m.**
Addition for Winter North Atlantic Freeboard (if required) = **4.75 + 2 = 6.75" = 171 m/m.**

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

120 m/m.
as previously assumed.

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.75 + .68}{1.36} = \frac{1.43}{1.36}$

Depth Correction **4.32** ✓
Deduction for superstructures **27.03** ✓
Sheer correction **.19** ✓
Round of Beam correction **.02** ✓
Correction for Thickness of Deck amidships ✓
Other corrections, scantlings, etc. ✓

4.51 **27.05** **- 22.54**
Summer Freeboard = **17.32**

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

Tropical Fresh Water Line above Centre of Disc ...	24.1 m/m. ✓
Fresh Water Line „ „ ...	120 „ ✓
Tropical Line „ „ ...	12.1 „ ✓
Winter Line below „ „ ...	12.1 „ ✓
Winter North Atlantic Line „ „ ...	17.1 „ ✓

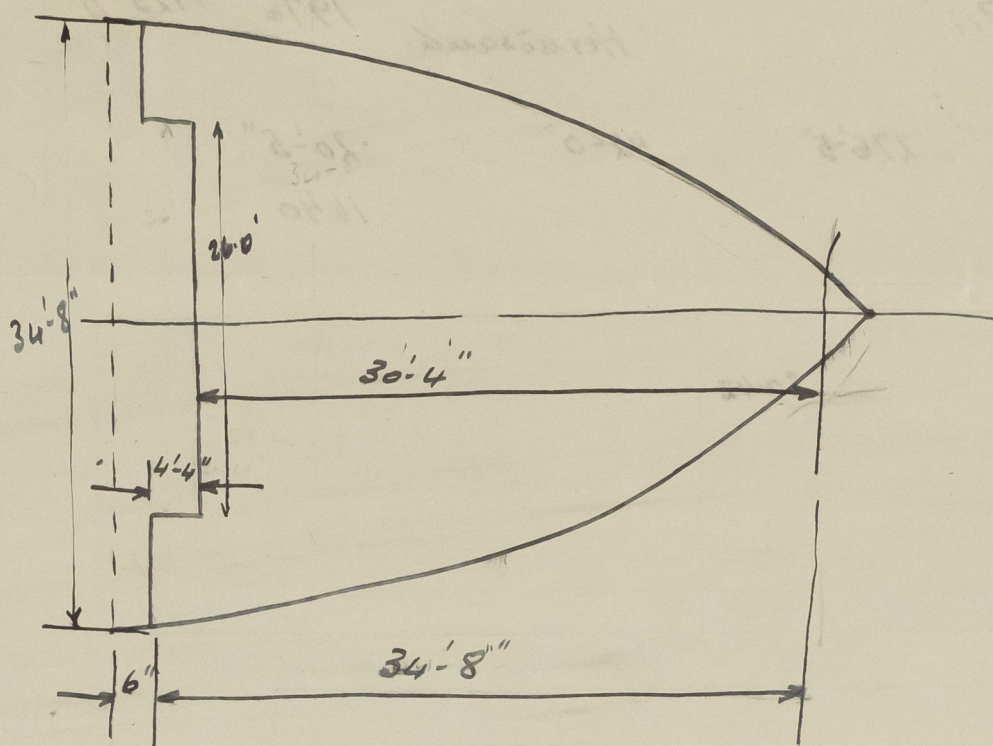
Tropical Fresh Water Freeboard ...	199 „
Fresh Water „ „ ...	320 „
Tropical „ „ ...	319 „
Winter „ „ ...	319 „
Winter North Atlantic „ „ ...	319 „

Svanö.

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.

File. Length to Bhd. 30.33. ✓
 + $\frac{2 \times 4.33 \times 4.}{34.67.}$ = 1.01.
 31.34 ✓

o/hang 35.16 - 31.34 = 3.82.



Bridge

Length to intact Bhd = 18.92.
 + 28.17.
 47.09. = 47.09. ✓
 Length of bridge with beam 2. = 169.00 + 9 152.60. ✓
 S. = 216.09. 199.19. = 512 E.

General.

Trade of ship

Names of sister ships

Builder's name and yard number

Aalborg Værft A/S No 20.

Owners

Dynäs A/B, Hernösand. (Mgr. A.F. Anderson, Hernösand).

Fee Kr. 380 ~



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