

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name SWAROZYC.	Official Number ✓	Nationality and Port of Registry Polish Szczecin Gdansk	Gross Tonnage 712	Date of Build 1943	Port of Survey Amsterdam
Moulded Dimensions: Length 45.50 m Breadth 12.00 m Depth 6.00 m					Date of Survey 27-1-48
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1340 m³ tons					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables 68 (0.481 actual)					Particulars of Classification 100 A1 "lowing service" "strongly recommended for navigation in ice" CLASS contemplated.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	6.000 m	(a) Where D is greater than Table depth (D-Table depth) R =	8.33(6.008-3.034)11.49 = +285 m/m.	Moulded Breadth (B)	12.00 m.
Stringer plate	0.0085 m	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	3.974	Standard Round of Beam = $\frac{B \times 12}{50}$	340 m/m
Sheathing on exposed deck	✓			Ship's Round of Beam	0.24 m
$T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	✓	Difference	nil.
Depth for Freeboard (D) =	6.008			Restricted to	✓
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$	nil. ✓

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					
F'cle enclosed	4.86				
" overhang	6.40 m	4.70	2.30	✓	4.70
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	4.86	4.70			4.70

Standard Height of Superstructure **1.83 m.**

" " R.Q.D. ✓

Deduction for complete superstructure **532 m/m.**

Percentage covered $\frac{S}{L} = 10.68$

" " $\frac{S_1}{L} = 10.33$

" " $\frac{E}{L} = 5.17$

Percentage from Table, Line A. **5.17** ✓
(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 = **532 × 0.0517 = -28 m/m.**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	633	1	633	405	855	1	855
1/4 L from A.P.	281	4	1124	30	330	4	1320
3/4 L	70	2	140	-86	64	2	128
Amidships	0	4	✓	✓	✓	4	✓
3/4 L from F.P.	141	2	282	325	175	2	350
1/4 L	563	4	2252	913	613	4	2452
F.P.	1266	1	1266	1742	1292	1	1292
Total			8697				6397

Mean actual sheer aft **EXTRA.**

Mean standard sheer aft = **EXTRA.**

Mean actual sheer forward **EXTRA.**

Mean standard sheer forward = **EXTRA.**

Length of enclosed superstructure forward of amidships = **nil.**

" " aft of " = **nil.**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{.6966} \right) = \frac{700(.75 - .0534)}{18 \cdot .6966} = -27 \text{ m/m.}$

If limited on account of midship superstructure. **Yes = nil.**

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 6.008 Summer freeboard = 1.648 Moulded draught (d) = 5.360 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \text{ inches} = 112 \text{ m/m.}$ Addition for Winter North Atlantic Freeboard (if required) = 112 + 51 = 163 m/m.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 1432 \text{ m}^3$ Tons per inch immersion at summer load water line $T = 10.00 \text{ tons.}$ Deduction = $\frac{\Delta}{40 T} \text{ inches} = 92 \text{ m/m.}$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient nil. <table border="1"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr><td>Depth Correction</td><td>285</td><td>✓</td></tr> <tr><td>Deduction for superstructures</td><td>✓</td><td>28</td></tr> <tr><td>Sheer correction</td><td>✓</td><td>✓</td></tr> <tr><td>Round of Beam correction</td><td>✓</td><td>✓</td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td>✓</td><td>✓</td></tr> <tr><td>Other corrections, scantlings, etc.</td><td>✓</td><td>✓</td></tr> <tr><td>285</td><td>28</td><td></td></tr> </tbody> </table> Summer Freeboard = 648 m/m.		+	-	Depth Correction	285	✓	Deduction for superstructures	✓	28	Sheer correction	✓	✓	Round of Beam correction	✓	✓	Correction for Thickness of Deck amidships	✓	✓	Other corrections, scantlings, etc.	✓	✓	285	28	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	204 m/m	Tropical Fresh Water Freeboard	444 m/m
Fresh Water Line	92 m/m	Fresh Water	556 m/m
Tropical Line	112 m/m	Tropical	536 m/m
Winter Line below	112 m/m	Winter	760 m/m
Winter North Atlantic Line	163 m/m	Winter North Atlantic	811 m/m

Swarozyc.

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.

Actual shears:-

	<u>11 1/2 10 1/2.</u>	<u>m/m</u>	<u>11 1/2 Keel.</u>
A.P.	408°	+ 450	= 858°
1/4 "	30	+ 300	= 330
1/3 "	-86	+ 150	= 64
1/2 "	✓	✓	= ✓
3/4 P.P.	325°	- 150	= 175°
1/6 "	913	- 300	= 613
P.P.	1742	- 450	= 1292

Drop of Keel
= 900 m/m.
by stern.

Goncastle:- (open).

Stems for'd is excess.

Length of f'ele = 4.86 m.

① 11L = 4.55 m = 100% for excess stems.

4.86 - 4.55 = .31 m = overhang.

③ Allowed o'hang = .31 x .5 = .155 m. ✓

∴ Total f'ele allowed = 4.55 + .155 m

= 4.70 m. ✓

Trade of ship Ocean going

Names of sister ships ✓

Builder's name and yard number Amsterdam Drydock Co. N° 83.

Owners "Polimer" (Polish import and export Co. for machines and tools) Warszawa.

Fee pl 115.00



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Foundation