

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

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

Ship's Name <b>"SOBIESKI"</b>	Official Number <i>not known yet</i>	Nationality and Port of Registry <b>POLISH GDYNIA</b>	Gross Tonnage <i>Not yet</i> <b>11029.91</b>	Date of Build <b>5-39.</b>	Port of Survey <b>Newcastle-upon-Tyne</b>
Moulded Dimensions: Length <b>485'-8 1/2"</b> Breadth <b>67'-0"</b> Depth <b>36'-3"</b> <i>to "D" on upper deck</i>					Date of Survey <b>April 1939</b> <i>while building</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>18310</b> <i>excluding 80 tons housing + 48 tons for cruiser stern.</i> tons					Surveyor's Signature <i>W. J. C. C.</i>
Coefficient of fineness for use with Tables <b>.68 (Actual .639)</b>					Particulars of Classification <b>+100 A.1. with freeboard</b>

  

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <b>36'-3"</b>	(a) Where D is greater than Table depth (D - Table depth) R = <b>(36.33 - 32.38) 3 = +11.85"</b>	Moulded Breadth (B) <b>67'-0"</b>
Stringer plate ... <b>44"</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>3.95"</b>	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{16.08"} \checkmark$
Sheathing on exposed deck <b>2 1/2"</b>	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = <b>6"</b>
$T \left( \frac{L-S}{L} \right) = .21 \times .444 = \mathbf{.044}$		Difference <b>deficiency = 10.08"</b>
Depth for Freeboard (D) = <b>36.33</b>		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{10.08^2}{4} \times .2511 = \mathbf{+.63"} \checkmark$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed EQUIV. ...	10.92	10.92	8'-0"	✓	10.92	Standard Height of Superstructure <b>4.5'</b>
" overhang ...	.29	.15	"	✓	.15	" R.Q.D. <b>✓</b>
R.Q.D. enclosed ...						Deduction for complete superstructure <b>42"</b>
" overhang ...						Percentage covered $\frac{S}{L} = \mathbf{82.30} \checkmark$
Bridge enclosed EQUIV. ...	301.91	271.42	8'-0"	✓	271.72	" $\frac{S_1}{L} = \mathbf{44.89} \checkmark$
" overhang aft ...	10.50	7.87	"	✓	7.87	" $\frac{E}{L} = \mathbf{44.89} \checkmark$
" overhang forward ...	5.59	2.49	"	✓	2.49	Percentage from Table, Line A. <b>69.02</b> ✓
F'cle enclosed EQUIV. ...	70.10	70.10	8'-0"	✓	70.10	(corrected for absence of forecastle (if required)) ✓
" overhang ...	.40	.20	"	✓	.20	Percentage from Table, Line B. ✓
Trunk aft ...						(corrected for absence of forecastle (if required)) ✓
" forward ...						Interpolation for bridge less than .2L (if required) ✓
Tonnage opening aft ...						Deduction = <b>42.00 x .6902 = 28.99"</b> ✓
" " forward ...						
Total ...	399.41	363.45			363.45	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	58.54	1		58.54	29.75	29.75	1		29.75
1/4 L from A.P. ...	26.06	4		104.24	13.00	13.00	4		52.00
3/4 L " ...	6.44	2		12.88	2.75	2.75	2		5.50
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	12.89	2		25.78	11.25	11.25	2		22.50
1/4 L " ...	52.13	4		208.52	43.00	43.00	4		172.00
F.P. ...	114.14	1		114.14	94.25	94.25	1		94.25
Total ...				524.13					346.00

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{151.13}{18} (.75 - .4115) = \mathbf{+2.84"} \checkmark$

If limited on account of midship superstructure ✓

Sheers are measured on the upper "D" deck above the depth mold at amidships. The drop of sheer is 1/4" and the lowest point of sheer is 15'-0" aft of midships.

Mean actual sheer aft = **Deficient**

Mean standard sheer aft = **Deficient**

Mean actual sheer forward = **Deficient**

Mean standard sheer forward = **Deficient**

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

" " aft of " = **Deficient**

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>36.29</b> Summer freeboard = <b>9.49</b> Moulded draught (d) = <b>26.50</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.62 = 168 mm</b> Addition for Winter North Atlantic Freeboard (if required) = <b>✓</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = \mathbf{15400} \checkmark$ Tons per inch immersion at summer load water line $T = \mathbf{59.49} \checkmark$ Deduction = $\frac{\Delta}{40T}$ inches = <b>6.44 = 164 mm</b>	<b>TABULAR FREEBOARD</b> <i>corrected for Flush Deck (if required)</i> Correction for coefficient <input checked="" type="checkbox"/> Depth Correction ... <b>11.85</b> Deduction for superstructures ... <b>28.99</b> Sheer correction ... <b>2.84</b> Round of Beam correction ... <b>.63</b> Correction for Thickness of Deck amidships ... <b>.48</b> Other corrections, scantlings, AND TO CORRESPOND TO A SUBDIVISION DRAUGHT OF <b>26'-6"</b> <b>UPPER (D)</b> Summer Freeboard = <b>117.50 = 2984 mm</b>
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## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel Deck:

Tropical Fresh Water Line above Centre of Disc ...	164 mm	Tropical Fresh Water Freeboard ...	2984 mm
Fresh Water Line " " ...	164 "	Fresh Water " " ...	2820 "
Tropical Line " " ...	NIL	Tropical " " ...	2984 "
Winter Line below " " ...	NIL	Winter " " ...	2984 "
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	✓



"SOBIESKI"

SMN.R. 1572

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.

*Logan*  
24.4.39.

Prop Equivalent Bulkhead

$$10.71 + \frac{.50 \times 15.75}{37.92} = 10.92 \checkmark$$

Overhang =  $.50 - .21 = .29 \checkmark$

Bridge End Equivalent Bulkhead

$$299.75 + \frac{15.50 \times 20.00}{62.00} = 304.75 \checkmark$$

Overhang =  $15.50 - 5.00 = 10.50 \checkmark$

Bridge Front Equivalent Bulkhead

$$304.75 \left\{ \begin{array}{l} + \frac{2.75 \times 20.00}{53.50} = +1.03 \checkmark \\ - \frac{(24.75 \times 7.00) + (7.50 \times 4.50)}{53.50} = -3.87 \checkmark \end{array} \right.$$

Overhang:  $304.75 + 1.03 - 3.87 = 301.91 \checkmark$

$$304.75 + 2.75 - 301.91 = 5.59 \checkmark$$

Forecastle Equivalent Bulkhead

$$70.00 + \frac{.50 \times 9.00}{43.17} = 70.10 \checkmark$$

Overhang:  $.50 - .10 = .40 \checkmark$

The watertight subdivision has been approved by the Board of Trade for a moulded draft of 26'-6"

*confirmed by phone Wm 24.4.39.*

Displacement Particulars

overshell displ at 26'-0" B.K. = 14469 tons (including 80 tons boresing + 11 tons overboard stern)  
" " " 27'-0" B.K. = 15482 " ( " 80 " " + 17 tons " " )

Tons per Inch mld at 26'-0" B.K. = 59.34

" " " " 27'-0" B.K. = 59.94

*Bottom of keel below moulded line = 3"*

Trade of ship

*South America + Poland.*

Names of sister ships

Builder's name and yard number

*Swan Hunter + Wigham Richardson Ltd. N° 1572.*

Owners

*Gdynia - America Shipping Lines Ltd.*

Fee £

*20 - 0 - 0.*



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