

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY

Received

Index No.

Govt. Copy

Owners C11

Ship's Name "CHOPIN" "Split" Yd.No. 152	Official Number	Nationality and Port of Registry Polish GDYNIA	Gross Tonnage 7136.24	Date of Build 1959	Port of Survey SPLIT
Moulded Dimensions: Length 140.0 m , Breadth 18.8 m , Depth 9.30 m Freeboard Length To 4 of rudder stock					Date of Survey whilst building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 15.000 cub.met. (excluding bossing) (d = 7.905 mwt)					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables .721					Particulars of Classification 100 A1 class contemplated

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	9.300	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	18.8m
Stringer plate ...	m/m 10.5	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	8.33(9.333-9.311) 30 = -5 mm	Standard Round of Beam = $\frac{B \times 100}{50}$	376
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	NO	Ship's Round of Beam	Nil
Depth for Freeboard (D) =	9.311			Difference	376mm
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right)$	376(0.0049) = Nil

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height m/m	Height Correction	Effective Length (E)
Poop enclosed ...	31.430	31.430	3253		31.430
" overhang195	.098	3253		.098
R.Q.D. enclosed ...					
" overhang ...					
COMBINED Bridge enclosed ...			2699		
" overhang aft075	.056			.056
" overhang forward ...					
Fore enclosed ...	107.050	107.050			107.050
" overhang ...					
Trunk aft ...		24x.5			
" forward ...					
Tonnage opening aft ...	1.250	.683			.683
" forward ...					
Total ...	140.000	137.317			137.317

Standard Height of Superstructure **2.290m**

" " R.Q.D. ...

Deduction for complete superstructure **1067mm**

Percentage covered $\frac{S}{L} = 100\%$

" " $\frac{S_1}{L} = 99.51\%$

" " $\frac{E}{L} = 99.39\%$

Percentage from Table, Line A. **B.**

(corrected for absence of fore-castle (if required))

Percentage from Table, Line B.

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **1067 x 99.39 = 1060mm**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate m/m	Effective Ordinate	S M	Product
A.P. ...	1420	1	1420	1419	1828	1	1828
1/4 L from A.P. ...	631	4	2524	734	813	4	3252
1/2 L " ...	158	2	316	315	201	2	402
Amidships ...	0	4	0	0	0	4	0
3/4 L from F.P. ...	316	2	632	356	327	2	654
1/4 L " ...	1262	4	5048	1210	1321	4	5284
F.P. ...	2840	1	2840	2590	2969	1	2969
Total ...			12.780	+ 409			14389

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{1609(.75-.50)}{18} = -22mm$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **9.311**

Summer freeboard = **1.267**

Moulded draught (d) = **8.044**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **168mm**

Addition for Winter North Atlantic Freeboard (if required) =

See over

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 15,595$ tons

Tons per inch immersion at summer load water line

T = **55.60**

Deduction = $\frac{\Delta}{40 T}$ inches

= **178mm**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

2285

2354

+ -

5

1060

32

1.087-1.087

Summer Freeboard = **1.267mm**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line.

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

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.

$$\begin{aligned} D-b_1 &= 18.592 - 7500 \\ D &= 18.592 \\ 11.092 &= .60 \text{ Max. } 5 \\ 18.592 \end{aligned}$$

Actual Typm DK height 2699
Standard 2.290
Excess 4.09 mm.

$$\begin{aligned} \text{Theat at F.P. (140.400 m)} &= 2590 \\ \text{F.P. (140 m)} &= 2590 \times \left(\frac{69.800^2}{70.200^2} \right) = 2560 \text{ mm} \\ &+ 409 \\ &= 2969 \text{ mm} \end{aligned}$$

Section through Tonnage hatch

Displacement and Tons per inch

Draft met	Displ. (1 to = 1016 kg)	To/inch
9.50	18.880	57.5
9.20	18.180	57.3
8.80	17.500	57.0
8.60	16.820	56.6
8.30	16.180	56.1
8.00	15.500	55.4
7.70	14.880	54.6

Δ & TPI at Lead dr: 8.044 m (Ndd).

8.30.	16.180.	56.1.
8.00.	15.500.	55.4.
.30.	680	.7
.044	102.	.09.
8.044.	15602.	55.55.

Mean TPI (8m-8.04 m) = 55.45

$$\begin{aligned} \therefore \Delta \text{com at } 8.044 &= 15,500 + \left(\frac{44}{100} \times 55.45 \right) \\ &= 15,500 + 24.4 = 15,524.4 \text{ Tons} \end{aligned}$$

Δ and T.P.I. reported @ 8.044 draught = 15595 tons and 55.60

Trade of ship **International**

Names of sister ships **Brodogradilište "SPLIT" Yd.No. 154 - building**

Builder's name and yard number **Brodogradilište "SPLIT" - Yd.No. 152**

Owners **Polskie Linie Oceaniczne, Gdynia**

Fee £ -- : -- : --

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



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