

# 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 20 JUL 1959

Index No.

Govt. Copy

Owners C11

Ship's Name <b>"CHOPIN"</b>	Official Number <b>"SPLIT" Yd.No.152</b>	Nationality and Port of Registry <b>Polish</b> <b>GDYNIA</b>	Gross Tonnage <b>9147.85</b>	Date of Build <b>1959</b>	Port of Survey <b>SPLIT</b>
Moulded Dimensions: Length <b>140.40 m</b> Breadth <b>18.80 m</b> Depth <b>11.999 m</b>					Date of Survey <b>whilst building</b>
Freeboard Length <b>To <math>\frac{1}{2}</math> of Rudder Stock</b>					Surveyor's Signature <i>Stipus</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>20.080 cub.met.</b> (excluding bossing) <b>(d = 10.200 met.)</b>					Particulars of Classification <b>100 A1</b> <b>class contemplated</b>
Coefficient of fineness for use with Tables <b>746</b>					

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	<b>11.999</b>	(a) Where D is greater than Table depth (D - Table depth) R =	<b>8.33(12.026 - 9.360) 20. = + 666 mm</b>	Moulded Breadth (B)	<b>18.80 m</b>
Stringer plate ...	<b>m/m 26.5</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 100}{50}$	<b>376</b>
Wood Sheathing on exposed deck				Ship's Round of Beam	<b>376 m/m</b>
$T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures	<input checked="" type="checkbox"/>	Difference	<b>Nil</b>
Depth for Freeboard (D) =	<b>12.026</b>			Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S}{L} \right)$	<b>Nil</b>

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height m/m	Height Correction	Effective Length (E)	
Poop enclosed	0.860	0.860	2500		0.860	
" overhang	0.800	0.400	2500		0.400	
R.Q.D. enclosed			--			
" overhang			--			
Bridge enclosed	24.425	24.425	2500		24.425	
" overhang aft	0.800	0.600	2500		0.600	
" overhang forward			--			
Fore enclosed	9.915	9.915	2500		9.915	
" overhang	685	0.658	2500		0.658	
Trunk aft			--			
" forward			--			
Tonnage opening aft						
" forward						
Total	37.483	36.856			36.856	

Standard Height of Superstructure **2.290 m**

" " R.Q.D. **1**

Deduction for complete superstructure **1067 mm**

Percentage covered  $\frac{S}{L} = 26.70\%$

" "  $\frac{S_i}{L} = 26.25\%$

Percentage from Table, Line A. **13.13%**

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **13.13%**

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **1067 x 13/13 = -140 mm**

## SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate m/m	Effective Ordinate	S	Product	
A.P.	1424	1	1424	1419	1424	1	1424	
1/4 L from A.P.	632	4	2528	734	632	4	2528	
1/2 L	158	2	316	315	158	2	316	
Amidships	0	4	0	0	0	4	0	
3/4 L from F.P.	316	2	632	356	356	2	712	
1/4 L	1265	4	5060	1210	1210	4	4840	
F.P.	2847	1	2847	2590	2590	1	2590	
Total			12807				12410	

Mean actual sheer aft = **Excess**

Mean standard sheer aft =

Mean actual sheer forward = **Deficient**

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{397(.75 - 1335)}{18} = + 14 \text{ mm}$

If limited on account of midship superstructure.

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

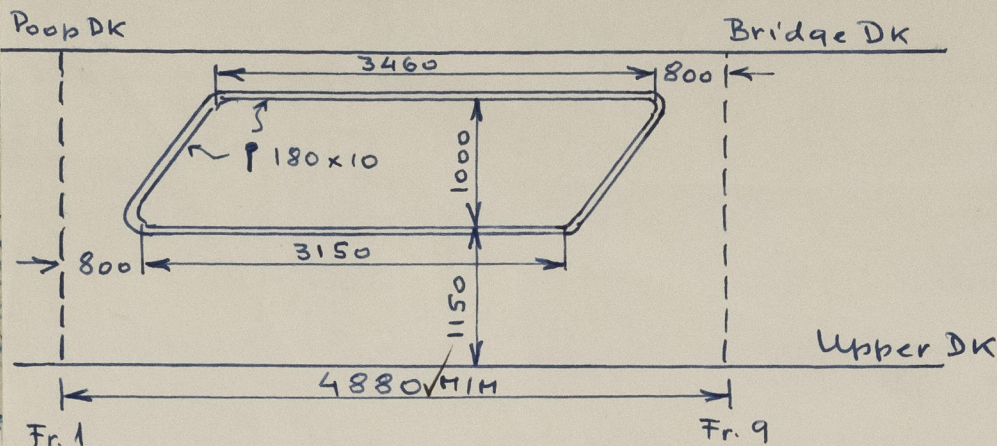
<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>12.026</b> Summer freeboard = <b>3.034</b> Moulded draught (d) = <b>8.992</b> Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = Winter freeboard = $\frac{d}{4}$ inches = <b>187 mm</b> Addition for Winter North Atlantic Freeboard (if required) =	<b>See over</b> <b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 17,700$ Tons per inch immersion at summer load water line $T = 57.20$ Deduction = $\frac{\Delta}{40 T}$ inches = <b>196 mm</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <b>1.36</b> Depth Correction ... <b>666</b> Deduction for superstructures ... <b>140</b> Sheer correction ... <b>14</b> Round of Beam correction ... <b>88</b> Correction for Thickness of Deck amidships ... <b>768</b> Other corrections, scantlings, etc. <b>DRAUGHT OF 29' 6" (8.992)</b> Summer Freeboard = <b>3034 mm</b>
--	---	---

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

	mm		mm
Tropical Fresh Water Line above Centre of Disc	383	Tropical Fresh Water Freeboard	3034
Fresh Water Line	196	Fresh Water	2651
Tropical Line	187	Tropical	2838
Winter Line below	187	Winter	2847
Winter North Atlantic Line		Winter North Atlantic	3221



"CHOPIN" Brodogradilište "Split" Yard No. 152  
 POSITION OF OPENING IN AFTER WELL SIDE PLATING  
 (Attached to C 11 Rpt. No 2163 f)



© 2021

Lloyd's Register  
 Foundation

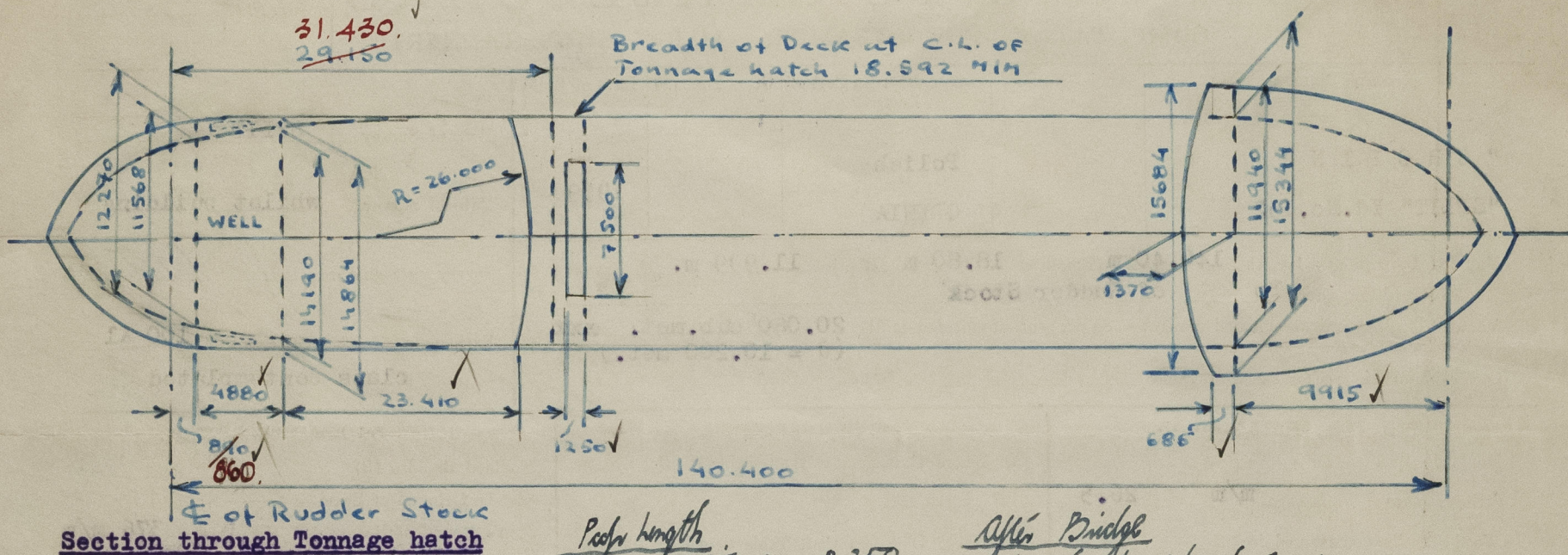
0075 2/2

equi " = 400mm

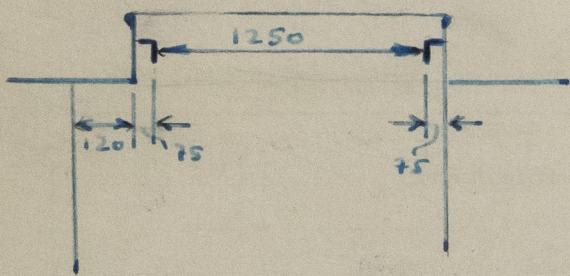
Bridge Front (New).



A new form should be prepared if any alterations that affect the measurement have been made, the Surveyor should endorse the form on this side with his signature and the date.



Section through Tonnage hatch



Profile length  
C.R. R/S to fr. 0 = 0.250  
fr 0 - 1 = 0.610  
Length = 860

Profile O/H. 0.800  
Equi " = 400 mm

After Bridge  
length at side = fr. 9-40  
fr 9-10 = 0.610  
fr 10-40 = 30.760 = 22.800  
Length at side 23.410

Bridge Front (Paw).

Displ. 9.225 = 35481  
26 = 20° 47'

cos. 20° 47' = .9349

Base front = 26 - (.9349 x 26)

= 26 - 24.307 = 1.693 m { 1520 }

Bridge O/H. aft = .800 Equi 1 = 1520 x 2/3 = 1.013

Equi O/H " = 600 mm + 23.410

24.423

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 IPI at load draught 8.992 m.

9.20	18.180	57.3
8.90	17.500	57.0
8.30	6.80	3
0.92	2.08	0.92
8.992		57.092

Mean IPI (8.9 m - 8.992) = 57.046

Corr Δ @ 8.992 = 17.500 + (0.92 x 57.046)

17.500 + 2.07 = 17.707 tons

9.20  
8.90  
8.30  
0.92

Profile

Length at side = fr. 176-FP  
176-191 = 9.150  
191-FP = 765  
Length = 9.915

Shards

Forward Shards

Stand.	SN	find.	Actual.	find
2847	1	2847	2590	2590
1265	3	3795	1210	3630
316	3	948	356	1068
0	12	7590		7288

Mean > Actual

∴ Only 5 tons allowed aft.

% Actual = 1288 / 7590 = 96.02%

∴ Eq. O/H = 685 x 96.02 = 658 mm

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 £ 60 - 0 - 0  
and Din. 33.600.-

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

- Reg. No. 21231 - Midship Section
- " " 21232 - Longitudinal Section
- " " 21284 - Decks and Double Bottom
- " " 37467 - Data for Freeboard (in duplicate)



© 2021

Lloyd's Register Foundation