

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name CASTILLO MONTJUVICH	Official Number 144428	Nationality and Port of Registry	Gross Tonnage	Date of Build 1919-12	Port of Survey
Moulded Dimensions: Length 411.6 Breadth 55.458 Depth 38.12					Date of Survey 27/3/52
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables .76					Particulars of Classification +100 A1 <i>Shell's deck w/nylon</i>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 38.12	(a) Where D is greater than Table depth (D - Table depth) R = (38.16 - 27.44)3 = + 32.16	Moulded Breadth (B) 55.458
Stringer plate ... 1/2" .04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 10.72	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{13.31}{50}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ _____	If restricted by superstructures	Ship's Round of Beam = $\frac{0}{13.31}$
Depth for Freeboard (D) = 38.16		Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{13.31}{4} \times .9028 = + 3.00$

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 ...					
Fore enclosed ...	40.0	40.0	7.5	-	40.0
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	40.0	40.0			40.0

Standard Height of Superstructure **7.5**

" " R.Q.D. _____

Deduction for complete superstructure **42**

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

" " $\frac{S_1}{L} =$ **9.72** ✓

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

Percentage from Table, Line A. **4.86** ✓
(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 = **42 x .0486 = 2.04** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	51.16	1		51.16	82.0	51.16	1		51.16
1/4 L from A.P. ...	22.77	4		91.08	18.2	22.77	4		91.08
2/4 L " ...	5.63	2		11.26	0	5.63	2		11.26
Amidships ...	-	4		-	0	0	4		-
3/4 L from F.P. ...	11.26	2		22.52	0	0	2		-
1/4 L " 3 ...	45.53	4		182.12	17.0	17.0	4		68.00
F.P. ...	102.32	1		102.32	95.0	95.0	1		95.00
Total ...				460.44					316.50

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 = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{143.94}{18} \left(.75 - .0486 \right) = + 5.61$

If limited on account of midship superstructure. **7014** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD
Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 38.16 Summer freeboard = 9.85 Moulded draught (d) = 28.31 Keel allowance = _____ Extreme draught = _____ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ Addition for Winter North Atlantic Freeboard (if required) = _____	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 = _____	Correction for coefficient $\frac{.76 + .68}{1.36} = 1.44$ Depth Correction ... 32.16 Deduction for superstructures ... 2.04 Sheer correction ... 5.61 Round of Beam correction ... 3.00 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... 40.77 2.04 + 38.73 Summer Freeboard = 118.26

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

Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...
Fresh Water Line " " ...	Fresh Water " " ...
Tropical Line " " ...	Tropical " " ...
Winter Line below " " ...	Winter " " ...
Winter North Atlantic Line " " ...	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.

Sheers aft

Standard

51.16.	1	51.16.
22.77	3	68.31
5.63	3	16.89
		<u>136.36</u>

Actual.

82.0	1	82.0
18.2	3	54.6
		<u>136.6</u>

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Lloyd's Register
Foundation

Rpt. C.

Mou

Mou

Coef

Mou

Strin

Shea

Poop

"

R.Q.L

"

Bridg

"

F'cle

"

Trunk

"

Tonna

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Stat

A.P.

$\frac{1}{8}$ L from

$\frac{3}{8}$ L "

Amidship

$\frac{3}{8}$ L from

$\frac{1}{8}$ L "

F.P.

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