

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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Ship's Name KYOKUTO MARU	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 500.00 Breadth 65.00 Depth 37.07					Date of Survey 22/11/51
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) _____ tons					Surveyor's Signature
Coefficient of fineness for use with Tables .74					Particulars of Classification Re classification carrying petroleum (Caterplated) in Bulk.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 37.07	(a) Where D is greater than Table depth (D-Table depth) R = 37.14 - 33.33 = +11.43	Moulded Breadth (B) 65.00
Stringer plate07	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 3.81	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{65 \times 12}{50} = 15.60$
Sheathing on exposed deck	If restricted by superstructures ✓	Ship's Round of Beam = 16.50
$T \left(\frac{L-S}{L} \right) =$		Difference +0.90
Depth for Freeboard (D) = 37.14		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{90}{4} \times 0.5703 = -13$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	160.50	160.50	7.75		160.50
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	36.21	18.11	8.00		18.11
" overhang a					
" overhang fo					
Fore enclosed	36.25	36.25	7.5		36.25
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	232.96	214.86			214.86

Standard Height of Superstructure	7.5
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	46.59 ✓
" " $\frac{S_1}{L} =$	42.97 ✓
" " $\frac{E}{L} =$	
Percentage from Table, Line A.	26.02
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	30.02
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	26.74
Deduction =	42.00 x 26.74 = 11.23

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{4}$ L from A.P.		4					4		
$\frac{2}{4}$ L "		2					2		
Amidships		4					4		
$\frac{3}{4}$ L from F.P.		2					2		
$\frac{1}{4}$ L "		4					4		
F.P.		1					1		
Total									

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

If limited on account of midship superstructure.

Mean actual sheer aft =

Mean actual sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

NIL

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	37.14
Summer freeboard =	8.92
Moulded draught (d) =	28.22
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) =	

Deduction for Fresh Water.

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	

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	11.43	✓
Deduction for superstructures	✓	11.23
Sheer correction	✓	✓
Round of Beam correction	✓	0.13
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc.	✓	✓

Summer Freeboard = **106.89**

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.

Bridge less than .2L = 3.62% ✓ 7.24%

line A = 26.02

line B = 30.02

diff = 4.00 % ✓

allowance = $26.02 + \left(\frac{.036}{.2} \times 4 \right)$

= 26.02 + 0.72

= 26.74

26.02
1.72
26.74

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation