Rpt. C.11 (Comp.).

Equivalent Depth.

Index No. _____

LLOYD'S REGISTER OF SHIPPING
UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
TSUKUSHI MARU				

Port of Survey _____

Date of Survey _____ 25.1.52

Surveyor's Signature _____

Particulars of Classification + 100 A1 carges.

Moulded Dimensions : Length 451.0 Breadth 59.06 Depth 22.23

Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons
(excluding bossing) To Cr of R/S

Coefficient of fineness for use with Tables _____ 68

DEPTH FOR FREEBOARD (D).

Moulded depth	22.23
Stringer plate	.03
Sheathing on exposed deck	

$T\left(\dfrac{L-S}{L}\right)=$

Depth for Freeboard (D) = 22.26

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D—Table depth) R =

(b) Where D is less than Table depth (if allowed)
(Table depth—D) R =

$\dfrac{(30.07-22.26)3}{7.81} = -23.43$

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) _____ 59.06

Standard Round of Beam = $\dfrac{B \times 12}{50}$ =

Ship's Round of Beam = STANDARD

Difference

Restricted to

Correction = $\dfrac{\text{Diff}^{o}}{4} \times \left(1-\dfrac{S_1}{L}\right)$ = NIL.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward...					
Total	451.0	451.0			451.0

Standard Height of Superstructure _____ 7.5

„ „ R.Q.D. _____

Deduction for complete superstructure _____ 42.00

Percentage covered $\dfrac{S}{L}$ =

„ „ $\dfrac{S_1}{L}$ = } 100

„ „ $\dfrac{E}{L}$ =

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required))

Interpolation for bridge less than ·2L (if required)

Deduction = 42.00"

L.R.T.D.H. = 8.0
L/L „ = 7.5
.5

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{6}$L from A.P. ...		4				4	
$\frac{2}{6}$L „ ...		2				2	
Amidships ...		4				4	
$\frac{2}{6}$L from F.P. ...		2				2	
$\frac{1}{6}$L „ ...		4				4	
F.P.		1				1	
Total ...							

$\dfrac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$

$\dfrac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$

$\dfrac{\text{Length of enclosed superstructure}}{L}$ forward of amidships =

„ „ aft of „ =

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(.75-\dfrac{S}{2L}\right)=$ — .5"

If limited on account of midship superstructure.

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.

		Ft.
Depth to Freeboard Deck	=	22.26
Summer freeboard	=	1.79
Moulded draught (d)	=	20.47
Keel allowance	=	
Extreme draught	=	

30.07
3.74
26.33

Deduction for Tropical freeboard and addition for _____

Winter freeboard = $\dfrac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\triangle$ =

Tons per inch immersion at summer load water line

T =

Deduction = $\dfrac{\triangle}{40\ T}$ inches

=

TABULAR FREEBOARD corrected for Flush Deck (if required)

87.41

Correction for coefficient

87.41

		+	−
Depth Correction			23.43
Deduction for superstructures	✓		42.00
Sheer correction			.50
Round of Beam correction			
Correction for Thickness of Deck amidships ...			
Other corrections, scantlings, etc. ...			
			65.93

65.93

Summer Freeboard = 21.48

1.79

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	„ „	

2m.7.50. T.

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