Rpt. C. 11 (Comp.).

16 OCT. 1950

Index. No. H2542
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
KŌEI MARU	38564	JAPAN Kobe	6774	1934-1

Port of Survey KOBE

Date of Survey 22ND JUNE 1950.

Surveyor's Signature G.G.Young

Particulars of Classification +100 A·1·

Moulded Dimensions: Length 435' Breadth 58·5. Depth 32·83.

Moulded displacement at moulded draught = 85 per cent. of moulded depth 14,900 tons

Coefficient of fineness for use with Tables ~~·75~~ ·734.

Depth for Freeboard (D).

Moulded depth	32·83
Stringer plate	·034
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	
Depth for Freeboard (D) =	32·864

Depth correction.

(a) Where D is greater than Table depth (D—Table depth) R =
$(32.86-29.00)\,3 = +11.58''$
3·86

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

If restricted by superstructures

Round of Beam correction.

Moulded Breadth (B) 58·50

Standard Round of Beam = $\frac{B \times 12}{50}$ = 14·04

Ship's Round of Beam = 14"

Difference = −·04

Restricted to

Correction = $\frac{\text{Diff}^{e}}{4} \times \left(1-\frac{S_1}{L}\right)$ = $\frac{\cdot04}{4} \times \cdot5459 = +\cdot01''$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	30·38	30·38	7·5	✓	30·38
„ overhang					
R.Q.D. enclosed					
„ overhang	124·69				
Bridge enclosed	~~123·75~~	124·69	7·75	✓	124·69
„ overhang aft	~~0·75~~	1·36	7·75	✓	1·36
„ overhang forward	1·81	E			
F'cle enclosed	41·12	41·12	7·5	✓	41·12
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	198·00	197·55			197·55

Standard Height of Superstructure 7·50

„ „ R.Q.D.

Deduction for complete superstructure 42·00

Percentage covered $\frac{S}{L}$ = 45·52

„ „ $\frac{S_1}{L}$ = } 45·41
„ „ $\frac{E}{L}$ = }

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

Percentage from Table, Line B. 32·10 (~~corrected for absence of forecastle (if required)~~)

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

Deduction = 42·00 × ·3210 = 13·48"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	53·50	1	53·50	66"	66·00	1	66·00
$\frac{1}{6}$L from A.P.	23·81	4	95·24	29·8	29·80	4	119·20
$\frac{2}{6}$L „	5·885	2	11·77	7·8	7·80	2	15·60
Amidships	—	4	—	0	—	4	—
$\frac{2}{6}$L from F.P.	11·77	2	23·54	15·5	15·50	2	31·00
$\frac{1}{6}$L „	47·615	4	190·46	58·3	58·30	4	233·20
F.P.	107·00	1	107·00	129·0	129·00	1	129·00
Total			481·51				594·00

Mean actual sheer aft / Mean standard sheer aft =
Mean actual sheer forward / Mean standard sheer forward = } Excess.

Length of enclosed superstructure / L forward of amidships = >·1L

„ „ aft of „ = >·1L.

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot75-\frac{S}{2L}\right)$ = $\frac{112.49}{18}(\cdot75-\cdot2276)$ = −3·26"
·5224

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

	Ft.
Depth to Freeboard Deck =	32·86
Summer freeboard =	6·72
Moulded draught (d) =	26·14

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6·54 = 166 mms.

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line △ =

Tons per inch immersion at summer load water line T =

Deduction = $\frac{\triangle}{40T}$ inches = 166 mms.

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~ 82.45

Correction for coefficient $\frac{\cdot734+\cdot68}{1\cdot36} = \frac{1.414}{1.36}$ 85.73.

	+	−	
Depth Correction	11·58	—	
Deduction for superstructures	—	13·48	
Sheer correction		3·26	
Round of Beam correction	·01	—	30.10.50
Correction for Thickness of Deck amidships	—	—	
Other corrections, scantlings, etc.	—	—	
	11·59	16·74	−5·15

Summer Freeboard = 80·58

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:— 2047 mms.

31.12.1950

Tropical Fresh Water Line	above	Centre of Disc	332	Tropical Fresh Water Freeboard	1715
Fresh Water Line	„	„	166	Fresh Water „	1881
Tropical Line	„	„	166	Tropical „	1881
Winter Line	below	„	166	Winter „	2213
~~Winter North Atlantic Line~~	—	—	...	~~Winter North Atlantic~~	...

CCC-4. 50 KOBE

Steel Mast

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.

Bredge at side = 123·75' ✓

$\frac{2.750 \times 20.00}{58.50}$ ✓ = $\frac{0.94'}{124.69'}$ ✓ equivt end. length.

⁰/hang 2·75 − ·94 = 1·81' equivt ⁰/hang.
✓

Trade of ship .....

Names of sister ships .....

Builder's name and yard number .....

Owners .....

Fee £ ..... : ..... : .....