

For Scantlings only.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Mitsui 556/7</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>421.00</i> Breadth <i>59.05</i> Depth <i>36.09</i> ✓ <i>To centre of Rudder stock.</i>					Date of Survey <i>8 11 49</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>.70 (assumed)</i> ✓					Particulars of Classification

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth <i>36.09</i> ✓	(a) Where D is greater than Table depth (D-Table depth) R = <i>(36.17 - 28.05) 3 = +24.30</i> ✓	Moulded Breadth (B) <i>59.05</i>
Stringer plate <i>.08</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>8.10</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{59.05 \times 12}{50} = 14.17$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>14.17</i>
Depth for Freeboard (D) = <i>36.17</i> ✓		Difference <i>NIL</i>
		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{NIL} ✓$

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	<i>40.00</i>	<i>40.00</i>	<i>7.50</i>	✓	<i>40.00</i>
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<i>40.00</i>	<i>40.00</i>			<i>40.00</i>

Standard Height of Superstructure *7.50* ✓

„ „ R.Q.D. ✓

Deduction for complete superstructure *42.00* ✓

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

„ „ $\frac{S_1}{L} = \frac{9.50}{100} = 9.50$ ✓

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. *4.75* ✓
(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 × .0475 = 2.00* ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<i>52.10</i>	1			<i>54.00</i>	<i>54.00</i>	1		<i>54.00</i>
$\frac{1}{8}L$ from A.P.		4			<i>24.00</i>	<i>24.00</i>	4		<i>96.00</i>
$\frac{2}{8}L$ „		2			<i>6.00</i>	<i>6.00</i>	2		<i>12.00</i>
Amidships		4			—	—	4		—
$\frac{2}{8}L$ from F.P.		2			<i>12.00</i>	<i>12.00</i>	2		<i>24.00</i>
$\frac{1}{8}L$ „		4			<i>48.00</i>	<i>48.00</i>	4		<i>192.00</i>
F.P.	<i>104.20</i>	1			<i>108.00</i>	<i>108.00</i>	1		<i>108.00</i>
Total				<i>468.90</i>					<i>486.00</i>

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = *NIL*.

„ „ aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{17.10(.75 - .0475)}{18} = -0.67$ "

If limited on account of midship superstructure. *Yes NIL*. *.7025* 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 = *36.17* Ft.

Summer freeboard = *8.46*

Moulded draught (d) = *27.71* ✓

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

Δ =

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 $\frac{.70 + .68}{1.36} = \frac{1.38}{1.36}$

	+	-
Depth Correction	<i>24.30</i>	—
Deduction for superstructures	—	<i>2.00</i>
Sheer correction	—	—
Round of Beam correction	—	—
Correction for Thickness of Deck amidships	—	—
Other corrections, scantlings, etc.	—	—
Total	<i>24.30</i>	<i>2.00</i>

Summer Freeboard = *101.56*

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

Tropical Fresh Water Line above Centre of Disc	
Fresh Water Line „ „	
Tropical Line „ „	
Winter Line below „ „	
Winter North Atlantic Line „ „	

Tropical Fresh Water Freeboard	
Fresh Water „ „	
Tropical „ „	
Winter „ „	
Winter North Atlantic „ „	

8.46