

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index No. 30565.
 (For London Office only).

Ship's Name <u>M.S. MANOERAN.</u>	Official Number	Nationality and Port of Registry <u>DUTCH</u> <u>AMSTERDAM</u>	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <u>151.689</u> Breadth <u>18.288</u> Depth <u>12.281</u>					Date of Survey <u>10.10.39.</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>22200 m³</u> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <u>.767</u>					Particulars of Classification <u>+100A1.</u>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth <u>12.281</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>8.33 (12.300 - 10.113) 30' = + 547 m/m.</u>	Moulded Breadth (B) <u>18.288</u>
Stringer plate <u>.019</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>2.187</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \underline{366}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>368</u>
Depth for Freeboard (D) = <u>12.300</u>		Difference <u>2</u>
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2}{4} \times .7077 = \underline{.354}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>14.28</u>	<u>14.28</u>	<u>2.362</u>		<u>14.28</u>
„ overhang	<u>.40</u>	<u>.20</u>	<u>+SHEATHING</u>		<u>.20</u>
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	<u>9.58</u>	<u>9.58</u>	<u>2.362</u>		<u>9.58</u>
„ overhang aft			<u>+SHEATHING</u>		
„ overhang forward					
F'cle enclosed	<u>20.27</u>	<u>20.27</u>	<u>2.362</u>		<u>20.27</u>
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<u>44.53</u>	<u>44.33</u>			<u>44.33</u>

Standard Height of Superstructure 2286

„ „ R.Q.D. ✓

Deduction for complete superstructure 1067

Percentage covered $\frac{S}{L} = \underline{29.36}$

„ „ $\frac{S_1}{L} = \underline{29.23}$

„ „ $\frac{E}{L} = \underline{29.23}$

Percentage from Table, Line A. 14.61 ✓
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 18.52 ✓
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required) $14.61 + \left(\frac{9.58}{30.34} \times 3.91 \right) = \underline{15.84}$ ✓

Deduction = $1067 \times .1584 = \underline{169 m/m}$ ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>1517</u>	1		<u>1517</u>	<u>1626</u>	<u>1626</u>	1		<u>1626</u>
$\frac{1}{2}$ L from A.P.	<u>674</u>	4		<u>2696</u>	<u>470</u>	<u>470</u>	4		<u>1880</u>
$\frac{2}{3}$ L „	<u>168</u>	2		<u>336</u>	-	-	2		-
Amidships	-	4		-	-	-	4		-
$\frac{2}{3}$ L from F.P.	<u>337</u>	2		<u>674</u>	-	-	2		-
$\frac{1}{2}$ L „	<u>1348</u>	4		<u>5392</u>	<u>1499</u>	<u>1499</u>	4		<u>5996</u>
F.P.	<u>3035</u>	1		<u>3035</u>	<u>3835</u>	<u>3835</u>	1		<u>3835</u>
Total				<u>13650</u>					<u>13337</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{5/3}{18} (.75 - .1467) = +10 m/m$ ✓

If limited on account of midship superstructure. .6033

Mean actual sheer aft = 1517 ✓
Mean standard sheer aft = 1626 ✓

Mean actual sheer forward = 674 ✓
Mean standard sheer forward = 470 ✓

Length of enclosed superstructure forward of amidships = 1626 ✓
aft of „ = 1410 ✓

Length of enclosed superstructure forward of amidships = 1626 ✓
aft of „ = 1410 ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 12.300 ✓
Summer freeboard = 3.14 ✓
Moulded draught (d) = 9.16 ✓

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48} \text{ inches} = \underline{19 \text{ cms}}$ ✓

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 = $\frac{\Delta}{40T} \text{ inches}$

$\frac{d}{48} = \underline{19 \text{ cms}}$ ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.68 + .767}{1.36} = \underline{.1447}$ ✓

Depth Correction 547 ✓
Deduction for superstructures 169 ✓
Sheer correction 10 ✓
Round of Beam correction ✓
Correction for Thickness of Deck amidships ✓
Other corrections, scantlings, etc. ✓

	+	-
Depth Correction	<u>547</u>	
Deduction for superstructures		<u>169</u>
Sheer correction	<u>10</u>	
Round of Beam correction		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
Total	<u>557</u>	<u>169</u>
Summer Freeboard		<u>388</u>

Summer Freeboard = 3135 ✓

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

Tropical Fresh Water Line above Centre of Disc	<u>38 cms</u> ✓
Fresh Water Line „ „	<u>19</u> ✓
Tropical Line „ „	<u>19</u> ✓
Winter Line below „ „	<u>19</u> ✓
Winter North Atlantic Line „ „	<u>✓</u>

Tropical Fresh Water Freeboard	<u>276</u> ✓
Fresh Water „ „	<u>295</u> ✓
Tropical „ „	<u>295</u> ✓
Winter „ „	<u>333</u> ✓
Winter North Atlantic „ „	<u>✓</u>

13 OCT 1939

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FEB 1940

RECEIVED 30 JAN 1940

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.

POOP EQUIV. LENGTH.

$$\text{RECESS} = \frac{18.25' \times 4}{56} = 1.30$$

$$\begin{array}{rcl} \text{LENGTH TO POOP FRONT} & = & 48.17 \\ \text{RECESS} & - & 1.30 \\ \hline & & 46.87' = 14.28 \text{ m.} \end{array}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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Foundation