

LLOYD'S REGISTER OF SHIPPING
UNITED WITH THE BRITISH CORPORATION REGISTER
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Proposed Lengthening

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
JAMES J MAGUIRE	167242	BRITISH		
Moulded Dimensions: Length <u>522.0</u> Breadth <u>69.75</u> Depth <u>37.00</u> Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>885000 ft³ est'd</u> tons (excluding bossing) Coefficient of fineness for use with Tables <u>773 approx.</u>				

Port of Survey _____
Date of Survey 27/6/52
Surveyor's Signature _____
Particulars of Classification + 100 A1
C.P.B.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth	... .. 37.00	(a) Where D is greater than Table depth (D-Table depth) R = (37.07 - 34.80) 3 = + 6.81.	Moulded Breadth (B) 69.75
Stringer plate	... .. 07	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 2.27	Standard Round of Beam = $\frac{B \times 12}{50} = 16.7$
Sheathing on exposed deck			Ship's Round of Beam = 16.7
T $\left(\frac{L-S}{L}\right) =$			Difference —
Depth for Freeboard (D) =	37.07	If restricted by superstructures	Restricted to
			Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \text{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	107.19	107.19	8.0	-	107.19
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	40.68	40.68	8.0	-	40.68
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed <i>assumed</i> 7.70 ...	36.54	36.54	7.5	-	36.54
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	184.41	184.41			184.41

Standard Height of Superstructure 7.5

" " R.Q.D. 42

Deduction for complete superstructure 42

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

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$

Percentage from Table, Line TANKER = 26.33

(corrected for absence of forecastle (if required)) 28.25

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than $\cdot 2L$ (if required)

Deduction = 42 \times 26.33 = 11.06

28.25 11.86

SHEER CORRECTION.

Station	Standard Ordnate	S M	Product	Actual Ordnate	Effective Ordnate	S M	Product
A.P. ...	62.20✓	1	62.20	74.89✓	62.20	1	62.20
$\frac{1}{8}$ L from A.P. ...	27.68✓	4	110.72	33.00✓	27.68✓	4	110.72
$\frac{2}{6}$ L " ...	6.84✓	2	13.68	7.5✓	6.84✓	2	13.68
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{6}$ L from F.P. ...	13.68✓	2	27.36	11.2✓	11.2	2	22.40
$\frac{1}{8}$ L " ...	55.36✓	4	221.44	51.0✓	51.0	4	204.00
F.P. ...	124.40✓	1	124.40	118.35✓	118.35	1	118.35
Total ...		✓	559.80✓			✓	531.35

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} = \text{Excess} \checkmark$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} = \text{Deficient} \checkmark$$

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

$$\text{aft of } = \text{sheers.}$$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{28.45}{18} (.75 - .1767) = + .91$ ✓
 If limited on account of midship superstructure. 5733 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	= 37.07
Summer freeboard	= 7.96
Moulded draught (d)	= 29.11
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

$T =$

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

TABULAR FREEBOARD corrected for Plush Deck (if required)					92.54
Correction for coefficient					98.86
Depth Correction	...	...	...	...
Deduction for superstructures	...	...	...	...
Sheer correction	...	...	...	...
Round of Beam correction	...	...	...	...
Correction for Thickness of Deck amidships	...	...	...	...
Other corrections, scantlings, etc.	...	...	...	...
Summer Freeboard					95.52

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.

Addition to Δ_{MLD} @ 85% depth

$$= 37 \times 69.75 \times 37 \times .85 \times .995$$

$$= 80,760 \text{ cu. ft.}$$

$$\text{New } \Delta_{MLD} @ 85\% \text{ depth} = 884,989 \text{ ft}^3$$

$$\text{Say } 885,000 \text{ ft}^3$$

$$\begin{array}{r} 804,229 \\ 80,760 \\ \hline 884,989 \end{array}$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



© 2020

Lloyd's Register
Foundation