

PROPOSED LENGTHENING BY 70'

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received
 Index No.
 Govt. Copy
 Owners C11

Ship's Name JAG VIJAY	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 486.50 Breadth 56.90 Depth 37.33					Date of Survey 7/9/56
Freeboard Length 487.35					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 20,067 tons					Particulars of Classification +100A1
Coefficient of fineness for use with Tables .798					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 37.33	(a) Where D is greater than Table depth (D-Table depth) R = (37.38-37.49)/3 = +14.67"	Moulded Breadth (B) = 56.90
Stringer plate05	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.66$
Wood Sheathing on exposed deck	If restricted by superstructures	Ship's Round of Beam = 14.00
$T \left(\frac{L-S}{L} \right) =$		Difference = .34
Depth for Freeboard (D) = 37.38		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.34}{4} = .09"$

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					
" overhang					
Trunk aft					
forward					
Tonnage opening aft					
" forward					
Total					

Flush deck
No Superstructures

Standard Height of Superstructure	_____
" " R.Q.D.	_____
Deduction for complete superstructure	_____
Percentage covered $\frac{S}{L} =$	_____
" " $\frac{S_1}{L} =$	_____
" " $\frac{E}{L} =$	_____
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 =	NIL

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	58.73	1		58.73	55.00	55.00	1		55.00
$\frac{1}{4}L$ from A.P.	26.135	4		104.54	19.80	19.80	4		79.20
$\frac{2}{4}L$ "	6.46	2		12.92	3.00	3.00	2		6.00
Amidships	0	4		0	0	0	4		0
$\frac{2}{4}L$ from F.P.	12.92	2		25.84	5.00	5.00	2		10.00
$\frac{1}{4}L$ "	52.27	4		209.08	39.50	39.50	4		158.00
F.P.	117.47	1		117.47	105.00	105.00	1		105.00
Total				528.58					413.20

Mean actual sheer aft = _____
 Mean standard sheer aft = _____ } Deficient.

Mean actual sheer forward = _____
 Mean standard sheer forward = _____

Length of enclosed superstructure forward of amidships = _____ } Flush deck.
 " " aft of " = _____

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{115.38}{18} \times .75 = +4.81"$
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 37.38 Ft.</p> <p>Summer freeboard = 11.21</p> <p>Moulded draught (d) = 26.17</p> <p>Keel allowance = _____</p> <p>Extreme draught = _____</p> <p>Deduction for Tropical freeboard and addition for = _____</p> <p>Winter freeboard = $\frac{d}{4}$ inches = _____</p> <p>Addition for Winter North Atlantic Freeboard (if required) = _____</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$ _____</p> <p>Tons per inch immersion at summer load water line</p> <p>T = _____</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches = _____</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.798 + .68}{1.36} = \frac{1.478}{1.36}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td>Depth Correction</td> <td style="text-align: right;">14.67</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: right;">4.81</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: right;">.09</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: right;">-</td> </tr> <tr> <td style="border-top: 1px solid black;">19.48</td> <td style="border-top: 1px solid black; text-align: right;">.09</td> </tr> <tr> <td></td> <td style="text-align: right;">+ 19.39</td> </tr> </table> <p>Summer Freeboard = 134.38</p>			Depth Correction	14.67	Deduction for superstructures	-	Sheer correction	4.81	Round of Beam correction09	Correction for Thickness of Deck amidships	-	Other corrections, scantlings, etc.	-	19.48	.09		+ 19.39
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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.

$$\begin{array}{r} \text{Old displacement at 85\% D.} = 16,600 \text{ tons} \checkmark \\ + \frac{56.90 \times 37.33 \times 85 \times 70.0 \times .96}{35} = 3,467 \checkmark \\ \hline 20,067 \checkmark \end{array}$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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Foundation