

PRELIMINARY

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index. No. **38028**
 (For London Office only).

Ship's Name SIR. J. LAIN & SONS LTD	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
YARD No 776					Date of Survey 3. 7. 45
Moulded Dimensions: Length 410.75 Breadth 56.5 Depth 29.25 <small>To CR. OF RODDER STOCK</small>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Particulars of Classification 100 A1 <i>Carrying Petroleum in Bulk (Contemplated)</i>
Coefficient of fineness for use with Tables .738 (Given by Builders)					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 29.25	(a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(29.33 - 27.38) 3 = + 5.85$	Moulded Breadth (B) 56.5
Stringer plate08	(b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$	Standard Round of Beam = $\frac{B \times 12}{50} = 13.56$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		Ship's Round of Beam = 13.56
Depth for Freeboard (D) = 29.33	If restricted by superstructures <input checked="" type="checkbox"/>	Difference NIL
		Restricted to <input checked="" type="checkbox"/>
		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 ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed EQUIV ...	154.26	154.26	7.5	<input checked="" type="checkbox"/>	154.26	Standard Height of Superstructure 7.5
" overhang ...	2.00	1.50	"	<input checked="" type="checkbox"/>	1.50	" " R.Q.D. <input checked="" type="checkbox"/>
R.Q.D. enclosed ...						Deduction for complete superstructure 42
" overhang ...						Percentage covered $\frac{S}{L} = 63.39$
Bridge enclosed ...						" " $\frac{S_1}{L} =$
" overhang aft ...						" " $\frac{E}{L} =$
" overhang forward ...						Percentage from Table, Line TANKE 79.72
Fore enclosed ...	102.79	102.79	7.5	<input checked="" type="checkbox"/>	102.79	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. <input checked="" type="checkbox"/>
Trunk aft ...		83.81	7.5	<input checked="" type="checkbox"/>	83.81	(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	1.32	.91 = 1/2 DIFF.		<input checked="" type="checkbox"/>	.91	Deduction = 42 x .7972 = - 33.48
" " forward						
Total ...	260.37	343.27			343.27	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	51.07	1		51.07	51.00	51.00	1		51.00	Mean actual sheer aft = Deficient but 7.25
1/8 L from A.P. ...	22.725	4		90.90	22.69	22.69	4		90.76	Mean actual sheer forward = Excess
1/4 L " ...	5.62	2		11.24	5.61	5.61	2		11.22	Mean standard sheer forward
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships =
3/8 L from F.P. ...	11.235	2		22.47	13.86	13.86	2		27.72	" " aft of " = TANKE
1/2 L " ...	45.45	4		181.80	56.07	56.07	4		224.28	
F.P. ...	102.15	1		102.15	126.00	126.00	1		126.00	
Total ...				459.63					530.98	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{71.35(-.75 - .3169)}{18} = -1.72$

If limited on account of midship superstructure. ☒ If limited to maximum allowance of 1 1/2 ins. per 100 ft. ☒

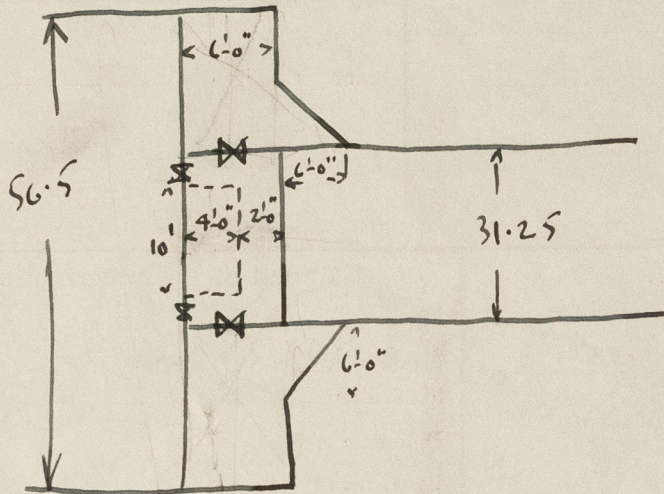
Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 29.33 Summer freeboard = 3.21 Moulded draught (d) = 26.12 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.53 = 6 1/2 Addition for Winter North Atlantic Freeboard (if required) = 6.53 + 4.11 = 10.64 = 10 3/4	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40 T}$ inches $\frac{d}{4} = 6 1/2$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.738 + .68}{1.36} = \frac{1.418}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>5.85</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>33.48</td> </tr> <tr> <td>Sheer correction ...</td> <td>-</td> <td>1.72</td> </tr> <tr> <td>Round of Beam correction ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td>5.85</td> <td>35.20</td> </tr> <tr> <td>Summer Freeboard =</td> <td colspan="2">38.52</td> </tr> </table>		+	-	Depth Correction ...	5.85	-	Deduction for superstructures ...	-	33.48	Sheer correction ...	-	1.72	Round of Beam correction ...	-	-	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		5.85	35.20	Summer Freeboard =	38.52	
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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	13"
Fresh Water Line	6 1/2"
Tropical Line	6 1/2"
Winter Line below	6 1/2"
Winter North Atlantic Line	10 3/4"

Tropical Fresh Water Freeboard	3 1/2"
Fresh Water	2 1/2"
Tropical	2 1/2"
Winter	3 1/4"
Winter North Atlantic	4 1/4"

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.



31.25
6
37.25

156.10
1.6
158.4
6
162.0
9
151.58

	Correct or equiv	Equivalent
Poop	151.58	151.58
$6 \times \frac{25.25}{56.5}$	2.68	2.68
Equiv included aft	154.26	154.26
Remaining Torange opening	1.32	
Overhang forward	2.00	1.50
Poep Total	157.58	155.76
	155.76	
	$2 \overline{) 1.82}$	
	.91 = 1/2 diff	

Trunk

	150.37	
	6.00	
Parallel Portion	144.37	$\times \frac{31.25}{56.5} = 79.85$
Sloping Portion	$6 \times \frac{37.25}{56.5}$	$= 3.96$
		83.81

31.25
6.00
37.25

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee



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Foundation