

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. **35285**
(For London Office only).N^o 32461

Ship's Name "LODESTONE" (Bartram 280)	Official Number 166585	Nationality and Port of Registry British London	Gross Tonnage 4877	Date of Build 1938	Port of Survey Sunderland. Date of Survey Whilst building. Surveyor's Signature Jos Kerne Particulars of Classification 100A1 with freeboard (contemplated)
Moulded Dimensions: Length 410'-4 7/8" Breadth 56'-3 1/2" Depth 27'-8" <i>To centre of keel.</i>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth 11408 tons					
Coefficient of fineness for use with Tables .734					

Depth for Freeboard (D). Moulded depth ... 27.66 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 27.70	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = $(27.70 - 27.40) \times 3 = +.90$ (b) Where D is less than Table depth (if allowed) (Table depth-D) R = <input checked="" type="checkbox"/> If restricted by superstructures <input checked="" type="checkbox"/>	Round of Beam correction. Moulded Breadth (B) 56.29 Standard Round of Beam = $\frac{B \times 12}{50} = 13.51$ Ship's Round of Beam = 13" Difference = deficient = .51" Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.51}{4} \times .0058 = \text{nil}$
---	---	--

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	27.74	27.74			27.74
„ overhang75	.38			.38
R.Q.D. enclosed ...	<input checked="" type="checkbox"/>				
„ overhang ...	<input checked="" type="checkbox"/>				
Bridge enclosed ...	378.08	378.08	8.50'		378.08
„ overhang aft ...	<input checked="" type="checkbox"/>				
„ overhang forward ...	<input checked="" type="checkbox"/>				
F'cle enclosed ...	<input checked="" type="checkbox"/>				
„ overhang ...	<input checked="" type="checkbox"/>				
Trunk aft ...	<input checked="" type="checkbox"/>				
„ forward ...	<input checked="" type="checkbox"/>				
Tonnage opening aft ...	4.42	2.40 = 1/2 diff.			2.40
„ „ forward ...	<input checked="" type="checkbox"/>				
Total ...	410.99	408.60			408.60

Standard Height of Superstructure **7.50'**
 „ „ R.Q.D. ☒
 Deduction for complete superstructure **42.00"**
 Percentage covered $\frac{S}{L} = 100.00$
 „ „ $\frac{S_1}{L} = 99.42$
 „ „ $\frac{E}{L} = 99.42$
 Percentage from Table, Line A. **99.28**
 (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 × 99.28 = - 41.70"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate +12.00	Effective Ordinate	S	M	Product
A.P. ...	51.10	1		51.10	120.00	132.00	1		132.00
1/2 L from A.P. ...	22.74	4		90.96	47.00	58.74	4		234.96
3/4 L „ ...	5.62	2		11.24	7.00	14.52	2		29.04
Amidships ...	—	4		—	0	—	4		—
3/4 L from F.P. ...	11.24	2		22.48	9.75	12.16	2		34.32
1/2 L „ ...	45.48	4		181.92	57.75	69.42	4		277.68
F.P. ...	102.20	1		102.20	144.00	156.00	1		156.00
Total ...				459.90	+12.00				864.00

Mean actual sheer aft = **Excess**
 Mean standard sheer aft = **Excess**
 Mean actual sheer forward = **Excess**
 Mean standard sheer forward = **Excess**
 Length of enclosed superstructure forward of amidships = } **C.S.S.**
 „ „ aft of „ = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{404.10}{18} \left(\frac{.75 - .50}{2} \right) = -5.61"$
 If limited on account of midship superstructure. ☒

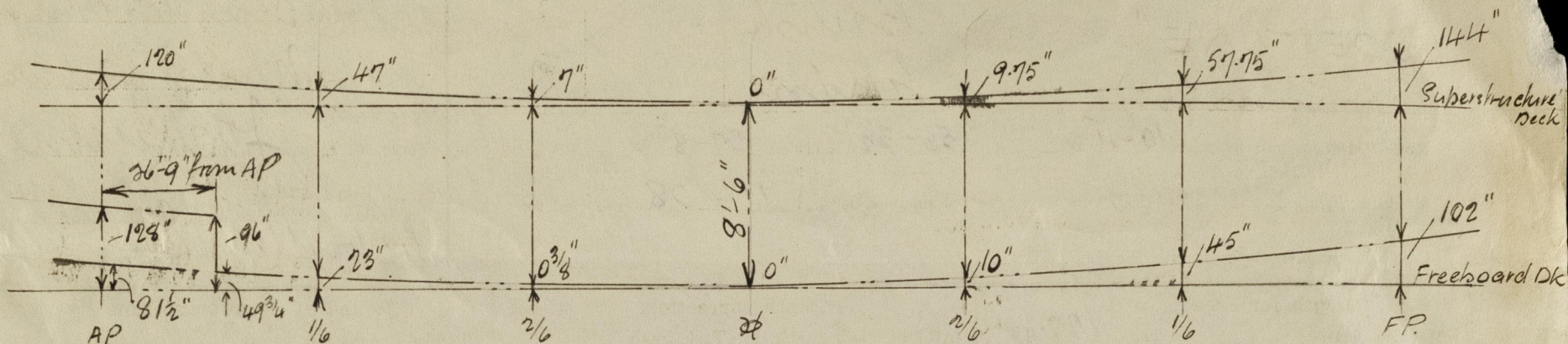
Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 27.70' Summer freeboard = 2.62' Moulded draught (d) = 25.08' Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.27 = 6 1/4" Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 12330$ Tons per inch immersion at summer load water line $T = 45.1$ Deduction = $\frac{\Delta}{40 T}$ inches = 6.83 = 6 3/4"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.734 + .68}{1.36} = \frac{1.414}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>.90</td> <td>—</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>—</td> <td>41.70</td> </tr> <tr> <td>Sheer correction ...</td> <td>—</td> <td>5.61</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>.90</td> <td>47.31</td> </tr> <tr> <td>Summer Freeboard =</td> <td colspan="2">31.49</td> </tr> </table>		+	-	Depth Correction90	—	Deduction for superstructures ...	—	41.70	Sheer correction ...	—	5.61	Round of Beam correction ...	—	—	Correction for Thickness of Deck amidships ...	—	—	Other corrections, scantlings, etc. ...	—	—		.90	47.31	Summer Freeboard =	31.49	
	+	-																											
Depth Correction90	—																											
Deduction for superstructures ...	—	41.70																											
Sheer correction ...	—	5.61																											
Round of Beam correction ...	—	—																											
Correction for Thickness of Deck amidships ...	—	—																											
Other corrections, scantlings, etc. ...	—	—																											
	.90	47.31																											
Summer Freeboard =	31.49																												

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

Tropical Fresh Water Line above Centre of Disc ...	13"	Tropical Fresh Water Freeboard ...	2'-7 1/2"
Fresh Water Line „ „ ...	6 3/4"	Fresh Water „ „ ...	1'-6 1/2"
Tropical Line „ „ ...	6 1/4"	Tropical „ „ ...	2'-0 3/4"
Winter Line below „ „ ...	6 1/4"	Winter „ „ ...	2'-1 1/4"
Winter North Atlantic Line „ „ ...	—	Winter North Atlantic „ „ ...	3'-1 1/4"

Ladestane

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.



External displacement 12330 tons at an actual draft of 25'-3" - Tons per Inch = 45.1

Trade of ship

Names of sister ships

Builder's name and yard number

Barkham & Sons Yard No 280.

Owners

The Alva Steamship Co Ltd.

Fee £ 15. 0. 0

Will be charged on completion



© 2020

Lloyd's Register Foundation