

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, ~~TANKER~~.)

Ship's Name "SOCOTRA"	Official Number	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 7754	Date of Build 1943	Port of Survey Glasgow
Moulded Dimensions: Length 455.72 Breadth 62.5 Depth 40.75 SH D[*] 32.25 UPP D[*]					Date of Survey while building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 14940 tons					Surveyor's Signature R. Dundas
Coefficient of fineness for use with Tables .68 (.670 actual)					Particulars of Classification +100A1 WITH FREEB^d (CONTEMPLATED)

Depth for Freeboard (D). Moulded depth ... 32.25 Stringer plate SH D[*] 0.68 UPP D[*] 0.63085 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \text{NIL}$ Depth for Freeboard (D) = 32.30	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = $(32.30 - 30.58) 3 = + 5.78$ 1.982 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = \checkmark If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) 62'-6" Standard Round of Beam = $\frac{B \times 12}{50} = 15.0$ Ship's Round of Beam = $15\frac{1}{2}$ Difference .50 Restricted to \checkmark Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.50}{4} \times .0061 = \text{NIL}$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	43.97	43.97	8'-6"	\checkmark	43.97
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...	406.25	406.25	8'-6"	\checkmark	406.25
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	5.50	2.75	8'-6"	\checkmark	2.75
" " forward ...					
Total ...	455.72	452.97			452.97

Standard Height of Superstructure **7.5**
 " " R.Q.D. \checkmark
 Deduction for complete superstructure **42"**
 Percentage covered $\frac{S}{L} = 100$
 " " $\frac{S_1}{L} =$
 " " $\frac{E}{L} =$ } **99.39**
 Percentage from Table, Line A. **99.25**
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. \checkmark
 (corrected for absence of forecastle (if required)) \checkmark
 Interpolation for bridge less than 2L (if required) \checkmark
 Deduction = $42 \times 99.25 = - 41.69$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	55.57	1		55.57	42.25	54.25	1		54.25
1/4 L from A.P. ...	24.73	4		98.92	14.43	24.14	4		96.56
1/2 L " ...	6.11	2		12.22	4.31	5.97	2		11.94
Amidships ...	-	4		-	0	-	4		-
3/4 L from F.P. ...	12.22	2		24.44	12.63	13.86	2		27.72
1/4 L " ...	49.45	4		197.80	50.68	56.07	4		224.28
F.P. ...	111.14	1		111.14	114.0	126.00	1		126.00
Total ...				500.09	12.00				540.75

Mean actual sheer aft = **.976**
 Mean standard sheer aft
 Mean actual sheer forward = **Excess**
 Mean standard sheer forward
 Length of enclosed superstructure forward of amidships =
 " " aft of " = } **C.S.S.**
 standard aft S.M.

55.57	1	55.57
24.73	3	74.19
6.11	3	18.33
0	1	0
		148.09

 Actual aft S.M.

54.25	1	54.25
24.14	3	72.42
5.97	3	17.91
0	1	0
		144.58

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{21} \right) = \frac{40.66}{18} \left(\frac{75-50}{21} \right) = - .56$
 If limited on account of midship superstructure. \checkmark
 If limited to maximum allowance of 1 1/2 ins. per 100 ft. \checkmark

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 32.30 Summer freeboard = 4.37 Moulded draught (d) = 27.93 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.98 = 7" Addition for Winter North Atlantic Freeboard (if required) = \checkmark	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 15,479$ Tons per inch immersion at summer load water line $T = 54.70$ Deduction = $\frac{\Delta}{40T}$ inches $= \frac{15,479}{40 \times 54.70} = 7.08 = 7"$ M.L.D.R. ^T FULL DISP. ^T T.P.1 28'-0" 15520 54.71 29'-0" 16180 55.25	TABULAR FREEBOARD corrected for Plush Deck (if required) Correction for coefficient NIL <table border="1"> <tr><th></th><th>+</th><th>-</th></tr> <tr><td>Depth Correction ...</td><td>5.78</td><td>-</td></tr> <tr><td>Deduction for superstructures ...</td><td>-</td><td>41.69</td></tr> <tr><td>Sheer correction ...</td><td>-</td><td>.56</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 colspan="2"></td><td>5.78 42.25 - 36.48</td></tr> </table> Summer Freeboard = 52.41.38		+	-	Depth Correction ...	5.78	-	Deduction for superstructures ...	-	41.69	Sheer correction ...	-	.56	Round of Beam correction ...	-	-	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-			5.78 42.25 - 36.48
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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 ...	14"	Tropical Fresh Water Freeboard ...	4'-4 1/2"
Fresh Water Line " " ...	7"	Fresh Water " " ...	3'-2 1/2"
Tropical Line " " ...	7"	Tropical " " ...	3'-9 1/2"
Winter Line below " " ...	7"	Winter " " ...	3'-9 1/2"
Winter North Atlantic Line " " ...	4"	Winter North Atlantic " " ...	4'-11 1/2"

(M. W. W. W. W.)

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.

Trade of ship International Trade.

Names of sister ships ✓

Builder's name and yard number Barclay Curle & Co Ltd Nº 691

Owners Hain Steamship Co. Ltd

Est Fee £ 18 : 0 : 0

The approved plans of Midship Section, Profile & Becks, Sternpost & Ladder & Hatch Webs, & closing plates for Longage openings are forwarded herewith for reference.
Freeboard request attached.



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Foundation