

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 13 AUG 1953

Index No.

Govt. Copy

Owners C11

Ship's Name "ALVA CAPE"	Official Number 185954	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 11,252	Date of Build 1953	Port of Survey GREENOCK
Moulded Dimensions: Length 512.0 Breadth 69.0 Depth 38.5					Date of Survey AUG. 1953
Freeboard Length 512.0					Surveyor's Signature <i>Alis Green</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 25010 tons					Particulars of Classification +100A1. CARRYING PETROLEUM IN BULK
Coefficient of fineness for use with Tables .757					

DEPTH FOR FREEBOARD (D).

Moulded depth **38.50**
 Stringer plate **.82"** **.07**
 Wood Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = **38.57**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
 (D-Table depth) R =
 $(38.57 - 34.13) 3 = +13.32"$
4.44
 (b) Where D is less than Table depth (if allowed)
 (Table depth-D) R =
 If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **69.0'**
 Standard Round of Beam = $\frac{B \times 12}{50} =$ **16.56**
 Ship's Round of Beam = **17.25"**
 Difference **0.69**
 Restricted to
 Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{0.69}{4} \times 0.5666 = -0.10"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV. SIDE ...	122.63	122.63	8.0	-	122.63
" overhang CENTRE ...	124.44				
R.Q.D. enclosed ...					
" overhang EQUIV. SIDE ...	49.52	49.52	8.0	-	49.52
Bridge enclosed EQUIV. SIDE ...	49.52	49.52	8.0	-	49.52
" overhang aft CENTRE ...	52.75				
" overhang forward ...					
F'cle enclosed ...	49.75	49.75	8.0	-	49.75
" overhang ...	4.5				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	221.90	221.90			221.90

Standard Height of Superstructure **7.50**" " R.Q.D. **-**Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} =$
 $\frac{S_1}{L} =$
 $\frac{E}{L} =$
43.34

Percentage from Table, **TANKER** **34.34**

(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 x .3434 = -14.42**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	61.20	1	61.20	42.00	42.00	1	42.00
$\frac{1}{8}L$ from A.P. ...	27.235	4	108.94	13.75	13.75	4	55.00
$\frac{2}{8}L$ " ...	6.73	2	13.46	.25	.25	2	.50
Amidships ...	0	4	0	0	0	4	0
$\frac{2}{8}L$ from F.P. ...	13.46	2	26.92	-	-	2	-
$\frac{1}{8}L$ " ...	54.47	4	217.88	2.50	2.50	4	10.00
F.P. ...	122.40	1	122.40	66.125	66.13	1	66.13
Total ...			550.80				173.63

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{377.17}{18} \times (0.75 - 0.2167) = +11.18"$
 If limited on account of midship superstructure. **0.5333** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **38.57**
 Summer freeboard = **8.77**
 Moulded draught (d) = **29.80**
 Keel allowance =
 Extreme draught =
 Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **7.45 = 7 $\frac{1}{2}$ "**Addition for Winter North Atlantic Freeboard (if required) = **7.45 + 5.12 = 12.57 = 12 $\frac{1}{2}$ "**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = \frac{29.5}{30.0} \times 22590 = 22338$
 Tons per inch immersion at summer load water line
 $T = \frac{29.5}{30.0} \times 71.0 = 70.8$
 Deduction = $\frac{\Delta}{40 T}$ inches = **7.93**
= 8"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{0.68 + 0.757}{1.36} = \frac{1.437}{1.36}$

Depth Correction **13.32**
 Deduction for superstructures **14.42**
 Sheer correction **11.18**
 Round of Beam correction **.10**
 Correction for Thickness of Deck amidships
 Other corrections, scantlings, etc.

24.50 **14.52** **+ 9.98**
 Summer Freeboard = **105.36**

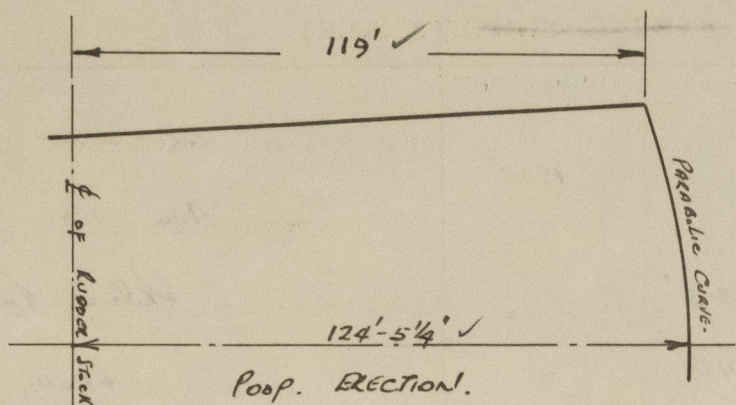
TANKER SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... **15 $\frac{1}{2}$ "**
 Fresh Water Line " " ... **8"**
 Tropical Line " " ... **7 $\frac{1}{2}$ "**
 Winter Line below " " ... **7 $\frac{1}{2}$ "**
 Winter North Atlantic Line " " ... **12 $\frac{1}{2}$ "**

Tropical Fresh Water Freeboard **7 $\frac{1}{2}$ "**
 Fresh Water " **8 $\frac{1}{2}$ "**
 Tropical " **8 $\frac{1}{2}$ "**
 Winter " **9 $\frac{1}{2}$ "**
 Winter North Atlantic " **9 $\frac{1}{2}$ "**

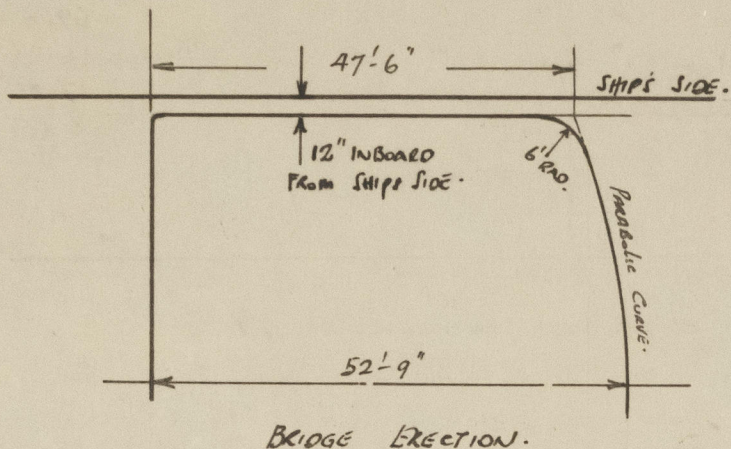
Alva Cape.

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.



Poop.

Length at side	119.00
+ $\frac{2}{3} \times 5.44$	3.63
Equiv. length.	122.63

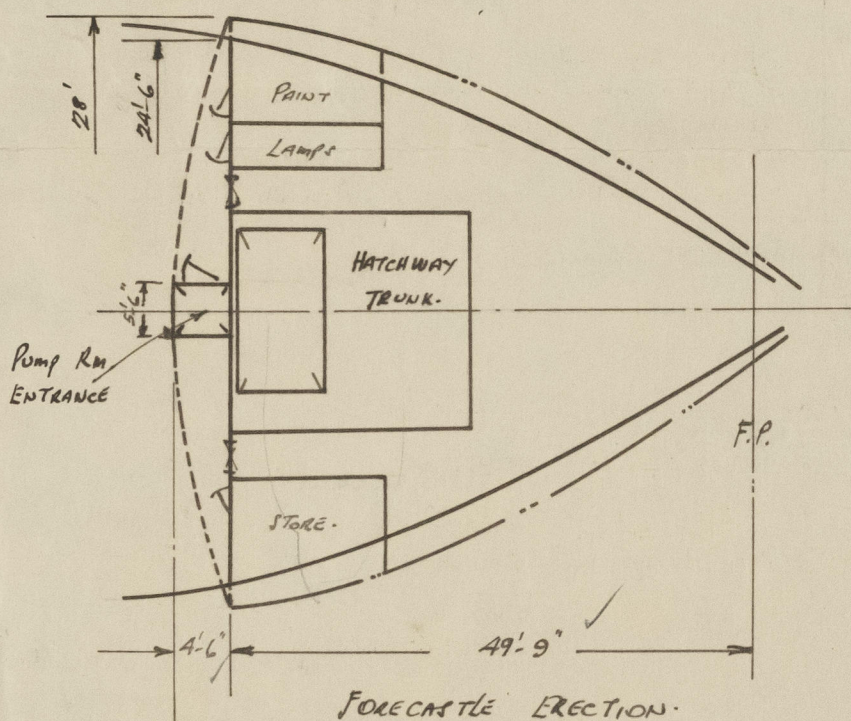


Bridge

Length at side	47.50
+ $\frac{2}{3} \times 5.25$	3.50
Equiv. length	51.00

$51.00 \times \frac{67.00}{69.00}$

Equiv. length = 49.52



Trade of ship INTERNATIONAL

Names of sister ships —

Builder's name and yard number GREENOCK DOCKYARD Co LTD. No 480.

Owners THE ALVA STEAMSHIP Co LTD.

Fee £ : :

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



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Foundation