

GLASGOW REPORT No. 79807.
LLOYD'S REGISTER OF SHIPPING
 UNITED WITH THE BRITISH CORPORATION REGISTER
SURVEYS FOR FREEBOARD
 (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

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Owners C11

Ship's Name "POLAR TANK" SOMERSET TRADER	Official Number	Nationality and Port of Registry LIBERIAN NORWEGIAN LARVIK MONROVIA.	Gross Tonnage 12651	Date of Build 1953	Port of Survey GLASGOW
Moulded Dimensions: Length 530.85 Breadth 72.50 Depth 40.50 Freeboard Length 70 CR. OF RUDDER STOCK					Date of Survey WHILE BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 27140 tons					Surveyor's Signature H.W. Queen
Coefficient of fineness for use with Tables .7182					Particulars of Classification +100 A.1. CARRYING PETROLEUM IN BULK

DEPTH FOR FREEBOARD (D).	
Moulded depth	40.50
Stringer plate	.08
Wood Sheathing on exposed deck	
$T \left(\frac{L-S}{L} \right) =$	
Depth for Freeboard (D) =	40.58

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D - Table depth) R =	(40.58 - 35.39) 3 = +15.57
(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	5.19
If restricted by superstructures	✓

ROUND OF BEAM CORRECTION.	
Moulded Breadth (B)	72.50
Standard Round of Beam = $\frac{B \times 12}{50}$	17.40
Ship's Round of Beam	18.00
Difference	.60
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.6}{4} \times .5623 = .08$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed Equiv.	142.77	142.77	8.0	✓	142.77
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed Equiv.	45.67	45.67	8.0	✓	45.67
" overhang aft	2.8	2.00			2.00
" overhang forward	.67				
F'cle enclosed	41.92	41.92	7.75		41.92
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	233.03	232.36			232.36

Standard Height of Superstructure	7.50
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	43.89
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	43.77
Percentage from Table, Line 2 TANKER	34.77
(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 × 34.77	14.60

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	63.09	1		63.09	55.18	55.18	1		55.18
1/4 L from A.P.	29.07	4		112.28	24.25	24.25	4		97.00
1/2 L	6.94	2		13.88	6.125	6.125	2		12.25
Amidships	0	4		0	0	0	4		0
3/4 L from F.P.	13.88	2		27.76	14.125	14.125	2		28.25
1/4 L	56.15	4		224.60	57.125	57.125	4		228.50
F.P.	126.17	1		126.17	128.75	128.75	1		178.75
Total				567.78					549.93

Mean actual sheer aft = DEFICIENT
 Mean standard sheer aft =

Mean actual sheer forward = EXCESS
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = } TANKER
 " " aft of " = }

Correction = Difference between sums of products $\left(\frac{.75 - S}{2L} \right) = \frac{17.85}{18} (.75 - .2145) = +.53$
 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	=	40.58
Summer freeboard	=	8.21
Moulded draught (d)	=	32.37
Keel allowance	=	
Extreme draught	=	
Deduction for Tropical freeboard and addition for	=	

Winter freeboard = $\frac{d}{4}$ inches = 8.09 = 8"

Addition for Winter North Atlantic Freeboard (if required) = 8.09 + 5.31 = 13.40 = 13 1/2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line	$\Delta = 25570$
Tons per inch immersion at summer load water line	T = 73.89
Deduction = $\frac{\Delta}{40 T}$ inches	= 8.65
	= 23 1/4"

TABULAR FREEBOARD

Corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction	15.57	✓
Deduction for superstructures	14.60	✓
Sheer correction	.53	✓
Round of Beam correction	.08	✓
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc.	✓	✓

16.10 14.68 + 1.42
 Summer Freeboard = 98.48

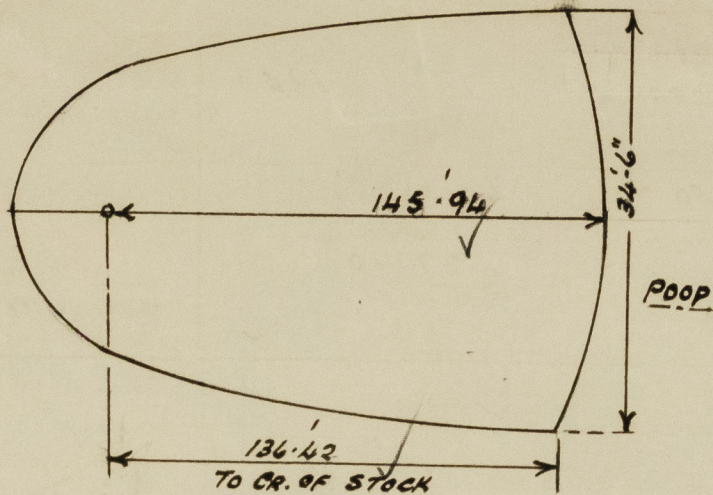
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel Deck:-

Tropical Fresh Water Line above Centre of Disc	16 3/4	425	Tropical Fresh Water Freeboard	8 1/2	2502 m/m
Fresh Water Line	8 3/4	222	Fresh Water	6 9/16	2077
Tropical Line	8	203	Tropical	7 5/16	2280
Winter Line below	8	203	Winter	7 6/16	2299
Winter North Atlantic Line	13 1/2	343	Winter North Atlantic	8 1/2	2705
				9 1/4	2845

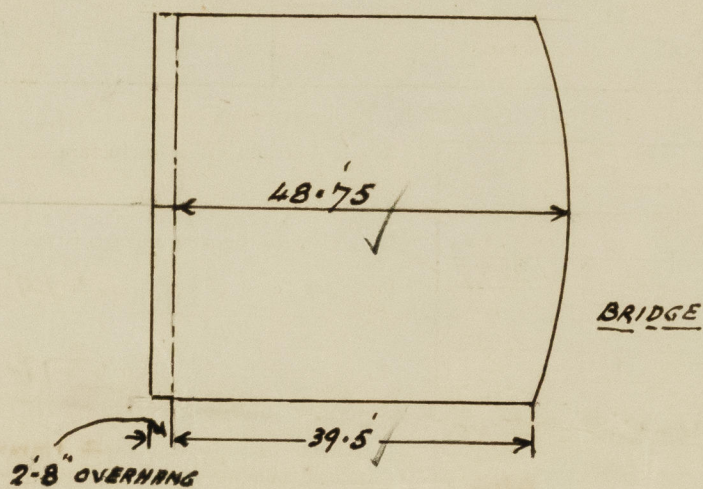
SOMERSET TRADER

Polar tank.

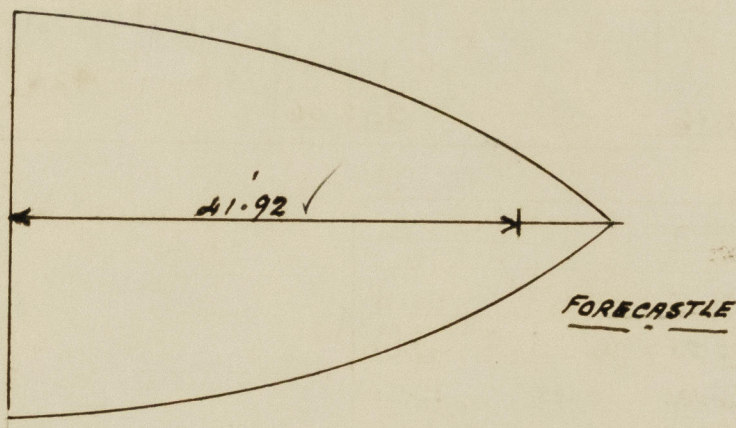
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



$$\begin{aligned} \text{Length at Side} &= 136.42 \\ + \frac{2}{3} \times 34.6 &= 6.35 \\ \hline &142.77 \end{aligned}$$



$$\begin{aligned} \text{Length at Side} &= 39.50 \\ + \frac{2}{3} \times 48.75 &= 6.17 \\ \hline &45.67 \\ \text{o/h.} &2.67 \end{aligned}$$



DRAFT	DISPLACEMENT	T. P. 1
32'-0"	25,170	72.66
33'-0"	26,060	74.18

Trade of ship

GENERAL

Names of sister ships

"POLARBRIS" (B. C. YARD N° 721) GLS REPT. N°s 76642 & 76947

Builder's name and yard number

BARCLAY, CURLE & Co. YARD N° 724

Owners

MELSON & MELSON

Fee £

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

PLANS OF UPPER DK & MIDSHIP SECTION ENCLOSED FOR REFERENCE
ALSO FREEBOARD REQUEST FORM.



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