

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

43722

Ship's Name "CATEX CALCUTTA."	Official Number 184703	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 8350 (APPROX.) 8527	Date of Build 1952	Port of Survey SUNDERLAND
Moulded Dimensions: Length 465'-0" Breadth 61'-9" Depth 36'-3"					Date of Survey DURING CONSTRUCTION.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18,999 tons					Surveyor's Signature Paul R. H. Duncan
Coefficient of fineness for use with Tables .7516					Particulars of Classification +100A1 carrying Pet. in Bulk.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	36.25	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	61.75'
Stringer plate	.70"	(36.71 - 31.00) 3 = 15.93"		Standard Round of Beam = $\frac{B \times 12}{50}$	14.82"
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	15 1/2'
$T \left(\frac{L-S}{L} \right) =$				Difference	68
Depth for Freeboard (D) =	36.31	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{68}{4} \times .5861 = -10'$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV.	112.67	112.67	8.0	—	112.67
" overhang	1.33	.67			.67
R.Q.D. enclosed					
" overhang					
Bridge enclosed EQUIV.	43.13	43.13	8.0	—	43.13
" overhang aft					
" overhang forward					
Fore enclosed (506 SKETCH)	36.00	36.00	8.0	—	36.00
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	193.13	192.47			192.47

Standard Height of Superstructure **7.50'**

" " R.Q.D. **—**

Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} = 41.54$

" " $\frac{S_1}{L} = 41.39$

Percentage from Table, Line **TANKER** **32.39.**

(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 .3239 = 13.60"**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	56.50	1	56.50	30"	30	1	30
1/8 L from A.P.	25.14	4	100.56	3"	3	4	12
3/8 L	6.21	2	12.42	✓	0	2	0
Amidships	—	4	—	✓	0	4	0
5/8 L from F.P.	12.43	2	24.86	✓	0	2	0
7/8 L	50.29	4	201.16	1	1	4	4
F.P.	113.00	1	113.00	15.5	15.5	1	15.5
Total			508.50				61.5

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

DEFICIENT.

Length of enclosed superstructure forward of amidships =

" " aft of " =

TANKER.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{447.00}{18} (.75 - .2077) = +13.47"$

If limited on account of midship superstructure. **5423** 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 = **36.31** Ft.

Summer freeboard = **8.23**

Moulded draught (d) = **28.08**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **7"**

Addition for Winter North Atlantic Freeboard (if required) = **7.02 + 4.65 = 11.67 = 11 3/4**

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 17154$

Tons per inch immersion at summer load water line **T = 58.32**

Deduction = $\frac{\Delta}{40 T}$ inches = **7.35"**

7 1/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.752 + .68}{1.36} = \frac{1.432}{1.36}$

	+	-
Depth Correction	15.93	—
Deduction for superstructures	—	13.60
Sheer correction	13.47	—
Round of Beam correction	—	10
Correction for Thickness of Deck amidships	—	—
Other corrections, scantlings, etc.	—	—
Total	29.40	13.70

Summer Freeboard = **98.83**

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

Tropical Fresh Water Line above Centre of Disc	1.4 1/4"	Tropical Fresh Water Freeboard	7'-0 1/2"
Fresh Water Line	7 1/4"	Fresh Water	7'-7 1/2"
Tropical Line	7"	Tropical	7'-7 3/4"
Winter Line below	7"	Winter	8'-9 3/4"
Winter North Atlantic Line	11 3/4"	Winter North Atlantic	9'-2 1/2"

Caltex Calcutta.

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.

Displacement extreme at Summer draft = 17,154 Tons S.W. ✓

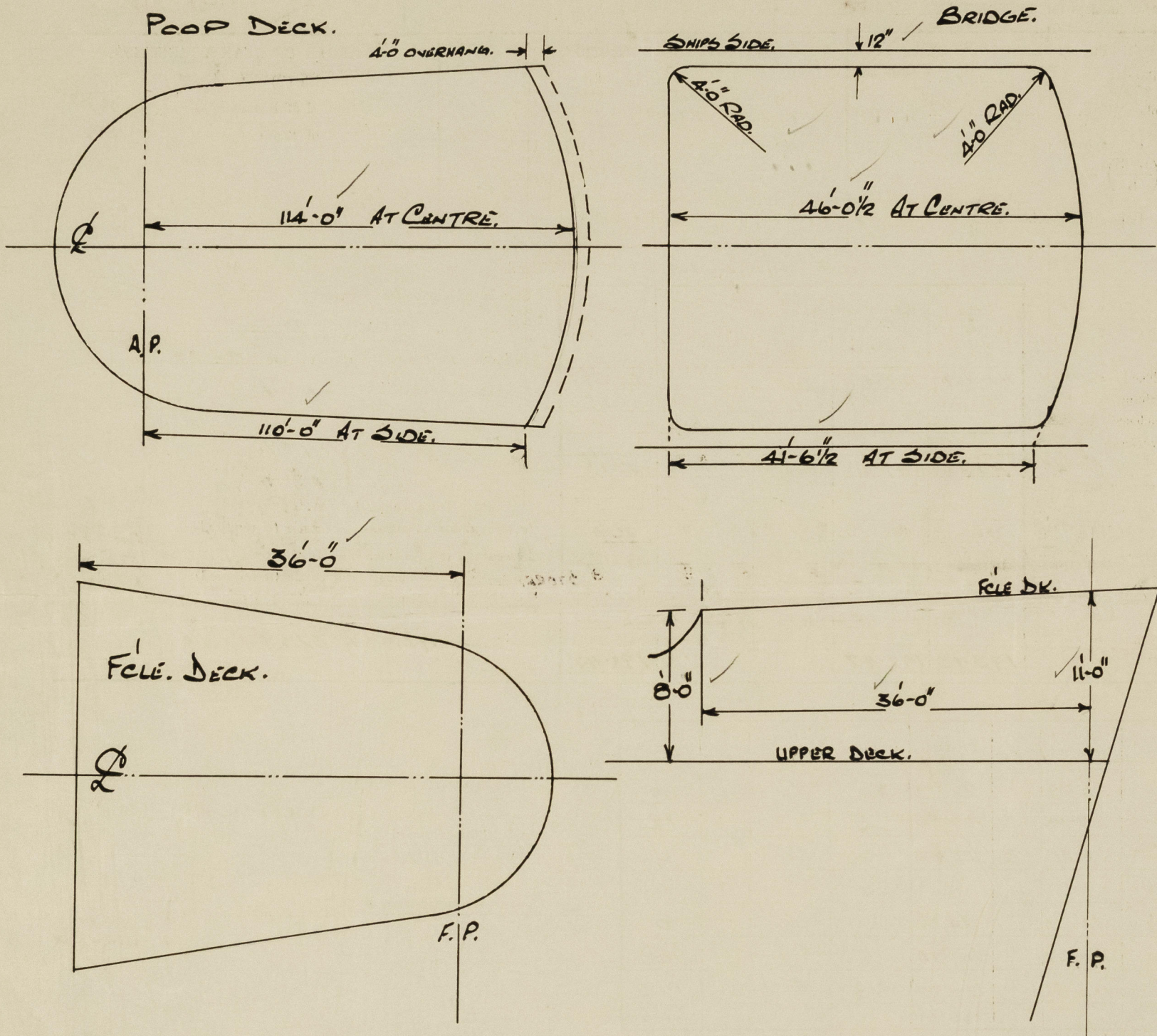
$$\text{EQUIV BRIDGE } 4200 + \frac{2 \times 4 \times 0.4 \times (\frac{11^2 - \pi 4^2}{4})^2}{3} = 59.71$$

Tons per inch " = 59.32 ✓

$$= 44.58 \times 59.75 = 4313$$

Stringer = $\frac{5}{8}$ " ✓

Knee = 1" ✓ EQUIV. POOP $\frac{2}{3} \times \frac{110}{267} = 1.33$
" " O.H. = 1.33.



Trade of ship Ocean Going Tanker.

Names of sister ships "Caltex Kenya" : "Caltex Tanganyika" : "Caltex Delhi".

Builder's name and yard number Wm Duxford & Sons Ltd Yard no. 789

Owners OVERSEAS TANKSHIP U.K. LTD.

Fee £ Will be charged on F.C.



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