

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "CALTEX DELHI"	Official Number	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 8350 (APPROX)	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 S.W.					Surveyor's Signature Noel F. H. Duncan
Coefficient of fineness for use with Tables .7516					Particulars of Classification +100A1 Danging 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 $(D - \text{Table depth}) R = \frac{136.31 - 31.10}{3} = +15.93'$	Moulded Breadth (B) 61-75'
Stringer plate ... 70" ... 06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 14.82'$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 15.2'
Depth for Freeboard (D) = 36-31		Difference .68
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68^2}{4} \times .5861 = -.10'$

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equin...</i>	112.67	112.67	8.0	-	112.67
" overhang ... "	33	0.87			67
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>Equin...</i>	43.13	43.13	8.0	-	43.13
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	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	
" $\frac{E}{L} =$ 32.39	
Percentage from Table, Line A <i>tanker</i> 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
$\frac{1}{8}L$ from A.P. ...	25.14	4		100.56	3"	3	4		12
$\frac{2}{8}L$ " ...	6.21	2		12.42	✓		2		-
Amidships ...	-	4		-	✓		4		-
$\frac{3}{8}L$ from F.P. ...	12.43	2		24.86	✓		2		-
$\frac{4}{8}L$ " ...	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

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{442.00 - 207.71}{18} = +13.47'$

If limited on account of midship superstructure. **5423** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Mean actual sheer aft	} Deficient
Mean standard sheer aft	
Mean actual sheer forward	} Tanker
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships =	
" " aft of " =	

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Plush Deck (if required)	78.95
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient 1.36	83.13
Depth to Freeboard Deck = 36-31	$\Delta =$ 17154	Depth Correction ... 15.93	
Summer freeboard = 8-23	Tons per inch immersion at summer load water line	Deduction for superstructures ... 13.60	
Moulded draught (d) = 28-08	T = 58.32	Sheer correction ... 13.47	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction10	
Winter freeboard = $\frac{d}{4}$ inches = 28.08	= 7-35'	Correction for Thickness of Deck amidships ...	
Addition for Winter North Atlantic Freeboard (if required) = 7.02 + 4.65 = 11.67 = 11-14'	7/4	Other corrections, scantlings, etc. ...	
		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	.14 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 1/4"	Tropical " "	7'-7 3/4"
Winter Line below " "	7 1/4"	Winter " "	8'-9 3/4"
Winter North Atlantic Line " "	11 3/4"	Winter North Atlantic " "	9'-2 1/2"

Caltex Delhi.

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.

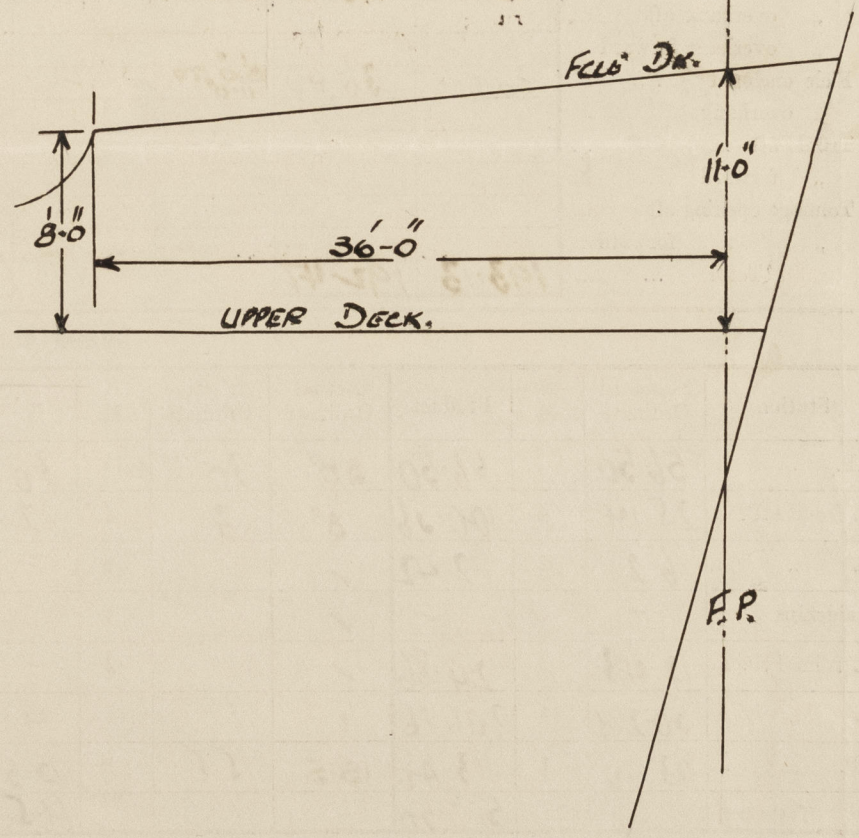
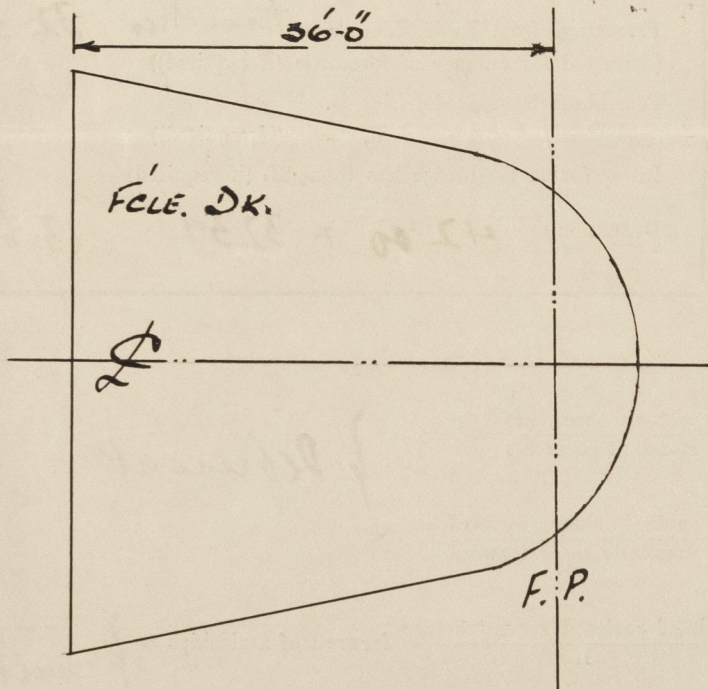
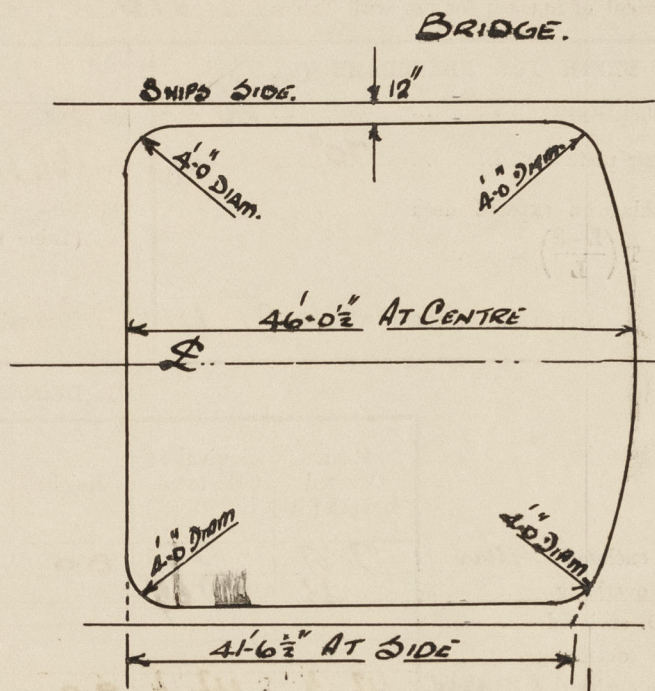
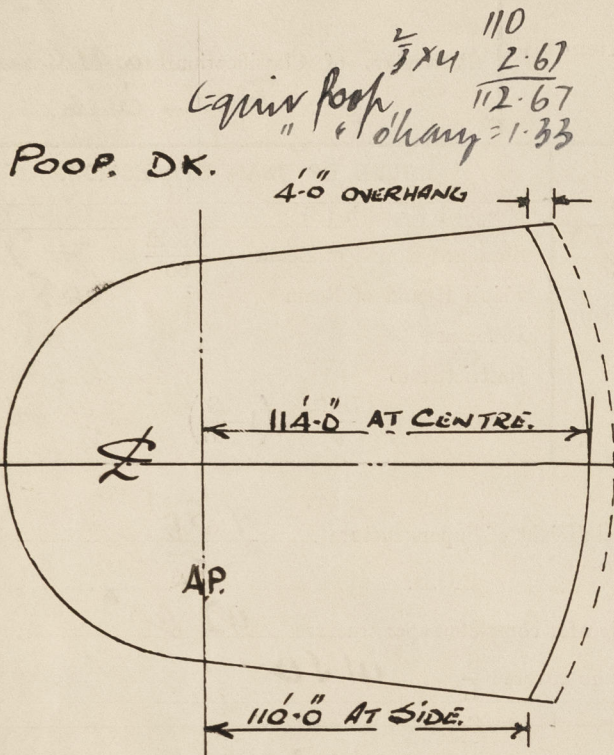
Displacement extreme at Summer draft = 17,154 Tons S.W.

Tons per inch = 59.32

Stringer = $\frac{5}{8}$ " - 70"

Knee = 1"

$$\begin{aligned} \text{Equiv Bridge} &= 42.00 + \frac{2}{3} \times 4.04 - \frac{(4^2 - \pi \frac{4^2}{4})^2}{4} \\ &= 44.58 \times \frac{59.75}{61.75} = 43.13 \end{aligned}$$



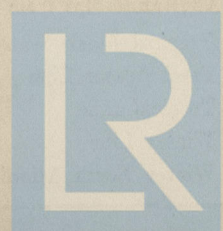
Trade of ship Ocean Going Tanker.

Names of sister ships "CALTEX KENYA"; "CALTEX TANGANYIKA".

Builder's name and yard number Wm DOXFORD & SONS LTD YARD N° 788.

Owners OVERSEAS TANKSHIP (U.K.) LTD.

Fee Will be charged on 7.6.



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Foundation