

T/O closed (W.E.)

B.T. OOPK

Index. No. 34296
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Ship's Name Pox Chalmers.	Official Number 163429	Nationality and Port of Registry British, London	Gross Tonnage	Date of Build 1933	Port of Survey
Moulded Dimensions: Length 486.5 Breadth 65.0 Depth 43.87					Date of Survey 29.3.41
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature
Coefficient of fineness for use with Tables 74 (estimated)					Particulars of Classification + A1 with freeboard.

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	43.87	(a) Where D is greater than Table depth (D - Table depth) R = (44.16 - 32.43) = + 35.19		Moulded Breadth (B)	65.00'
Stringer plate	.70	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 11.73		Standard Round of Beam = $\frac{B \times 12}{50}$	15.60"
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \left(\frac{486.5-45}{486.5} \right)$.25	✓		Ship's Round of Beam	16.25"
Depth for Freeboard (D) =	44.16	If restricted by superstructures	✓	Difference	excess .65"
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.65}{4} \times .9128 = -.15"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Forecastle enclosed	45.00	42.44	7.50	✓	42.44
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	45.00	42.44			42.44

Standard Height of Superstructure	7.50'
" " R.Q.D.	✓
Deduction for complete superstructure	42.00"
Percentage covered $\frac{S}{L} =$	9.25
" " $\frac{S_1}{L} =$	7.25
" " $\frac{E}{L} =$	9.25
Percentage from Table, Line A.	4.36
(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 .0436 = -1.83"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	58.65	1		58.65	54.40	54.40	1		54.40
$\frac{1}{2}$ L from A.P.	26.10	4		104.40	24.05	24.05	4		96.20
$\frac{3}{8}$ L	6.45	2		12.90	6.10	6.10	2		12.20
Amidships	-	4		-	-	-	4		-
$\frac{3}{8}$ L from F.P.	12.90	2		25.80	12.95	12.95	2		25.90
$\frac{1}{2}$ L	52.40	4		209.60	49.10	49.10	4		196.40
F.P.	117.30	1		117.30	108.60	108.60	1		108.60
Total				527.85					493.50

Mean actual sheer aft	= Deficient
Mean standard sheer aft	
Mean actual sheer forward	= Deficient
Mean standard sheer forward	
Length of enclosed superstructure	forward of amidships =
"	aft of " =
Final sheer	Standard
Actual	Actual
12.40	3 38.70
52.40	3 156.60
117.30	1 108.60
294.70	94.3% Standard
Correction =	Difference between sums of products $\left(\frac{.75 - S}{18} \right) = \frac{34.35}{18} = 1.91$
If limited on account of midship superstructure.	✓
	If limited to maximum allowance of $\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	99.19 -
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	63.58 -
Depth to Freeboard Deck =	$\Delta =$	Depth Correction	35.19 -
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures	1.83 -
Moulded draught (d) =	T =	Sheer correction	1.34 -
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction	.15 -
Winter freeboard = $\frac{d}{4}$ inches =	= 8"	Correction for Thickness of Deck amidships	.24 -
Addition for Winter North Atlantic Freeboard (if required) =	✓	Other corrections, scantlings, etc.	23.38 -
		Summer Freeboard =	161.75 -

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

Tropical Fresh Water Line above Centre of Disc	15 3/4"
Fresh Water Line	8"
Tropical Line	7 3/4"
Winter Line	7 3/4"
Winter North Atlantic Line	✓

Tropical Fresh Water Freeboard	13 1/2"
Fresh Water	12 1/2"
Tropical	12 1/2"
Winter	12 1/2"
Winter North Atlantic	✓

1 APR 1941