

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "PINELAND"	Official Number 182696	Nationality and Port of Registry BRITISH. LEITH.	Gross Tonnage 2759	Date of Build 1949	Port of Survey DUNDEE.
Moulded Dimensions: Length 300.625 Breadth 46.0' Depth 23.28' (as built) <i>To centre of rudder stock</i>					Date of Survey while building.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 5540 tons					Surveyor's Signature S. Bowman.
Coefficient of fineness for use with Tables .709					Particulars of Classification 100 A1 (contemplated)

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 23.28	(a) Where D is greater than Table depth (D-Table depth) R = 23.31 - 20.04 = 3.27	Moulded Breadth (B) 46.0
Stringer plate34	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{46 \times 12}{50} = 11.04$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ none	If restricted by superstructures ✓	Ship's Round of Beam = 9
Depth for Freeboard (D) = 23.31		Difference DEFICIENT. 2.04
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2.04^2}{4} \times 1.5770 = +.29$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>see 16.30</i>	<i>16.30</i>	<i>at 6.51</i>		<i>16.30</i>
" overhang ...	<i>sketch .82</i>	<i>.91</i>	<i>at 10.75</i>		<i>.91</i>
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>see 80.91</i>	<i>80.91</i>	<i>8.08</i>		<i>80.91</i>
" overhang aft ...	<i>sketch .82</i>	<i>.82</i>			<i>.82</i>
" overhang forward ...					
F'cle enclosed ...	<i>see 24.02</i>	<i>24.02</i>	<i>7.50</i>		<i>24.02</i>
" overhang ...	<i>sketch 4.20</i>	<i>4.20</i>			<i>4.20</i>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>128.34</i>	<i>127.16</i>			<i>127.16</i>

Standard Height of Superstructure 6.51	
" " R.Q.D. ✓	
Deduction for complete superstructure 35.37	
Percentage covered $\frac{S}{L} = \frac{128.34}{300.625} = 42.69$	
" " $\frac{S_1}{L} = \frac{127.16}{300.625} = 42.30$	
Percentage from Table, Line A. ✓	
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B. 29.45	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required) ✓	
Deduction = 35.37 + 29.45 = 64.82	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	40.06	1		40.06	40.5	40.50	1		40.50
$\frac{1}{2}$ L from A.P. ...	17.825	4		71.30	18.25	18.25	4		73.00
$\frac{3}{8}$ L " ...	4.405	2		8.81	4.75	4.75	2		9.50
Amidships ...	✓	4		✓	✓	✓	4		✓
$\frac{5}{8}$ L from F.P. ...	8.815	2		17.63	9.25	9.25	2		18.50
$\frac{1}{2}$ L " ...	35.655	4		142.62	35.75	35.75	4		143.00
F.P. ...	80.13	1		80.13	80.00	80.00	1		80.00
Total ...				360.55					364.50

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{3.95}{18} \left(.75 - \frac{127.16}{601.25} \right) = -.12$

If limited on account of midship superstructure. **✓**

Mean actual sheer aft = **40.50**
Mean standard sheer aft = **40.06**
Mean actual sheer forward = **9.50**
Mean standard sheer forward = **8.81**
Length of enclosed superstructure forward of amidships = **7.1L**
" " aft of " = **7.1L**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	43.56
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line $\Delta =$ 5594	Correction for coefficient $\frac{709+68}{1.36} = \frac{1.389}{1.36}$	44.49
Depth to Freeboard Deck = 23.31	Tons per inch immersion at summer load water line $T =$ 26.90	Depth Correction ... 7.56	
Summer freeboard = 3.48	Deduction = $\frac{\Delta}{40 T}$ inches = 5.20	Deduction for superstructures ... 10.42	
Moulded draught (d) = 19.83	5 1/4	Sheer correction12	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.96 = 5"		Round of Beam correction29	
Addition for Winter North Atlantic Freeboard (if required) = 5+2 = 7"		Correction for Thickness of Deck amidships ... ✓	
		Other corrections, scantlings, etc. ... ✓	
		7.85 10.54 - 2.69	
		Summer Freeboard = 41.80	

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

Tropical Fresh Water Line above Centre of Disc ...	10 1/4	260	Tropical Fresh Water Freeboard	3' - 5 3/4"	1060
Fresh Water Line " "	5 1/4	133	Fresh Water " "	2' - 7 1/2"	800
Tropical Line " "	5	127	Tropical " "	3' - 0 1/2"	927
Winter Line below " "	5	127	Winter " "	3' - 0 3/4"	933
Winter North Atlantic Line " "	7	178	Winter North Atlantic " "	4' - 0 1/2"	1187

Pine Land

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.

Pool:- Length to Bhd. = 16.62'

$$\text{Less. } \frac{5.0 \times 4.0}{32.0} = \frac{0.63}{15.99}$$

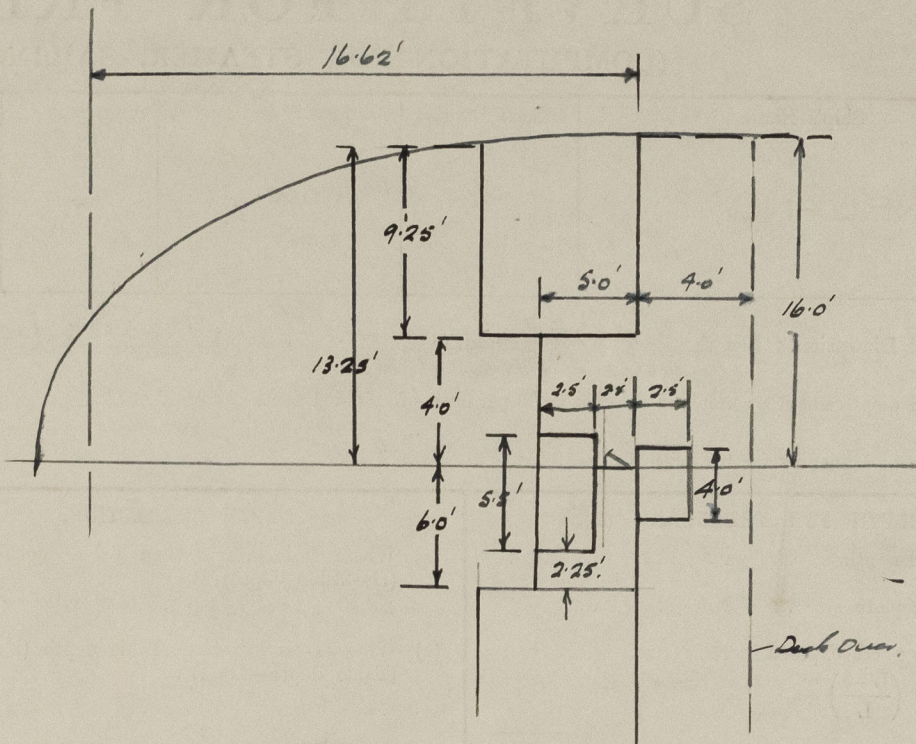
Plus. $\frac{4.0 \times 2.5}{32.00} = \frac{0.31}{16.30}$

Overshang. 20.62 - 16.30

= 4.32' width of stairway.

= 4.32' - 2.50'

Equiv. = 1.82'



Bridge:-

Equiv. length. = $82.0' - \frac{25 \times 2}{46}$

= 82.0' - 1.09'

80.91

Overshang aft. = 1.09'

" fwd. = NIL.

FORECASTLE:-

Length to bulkhead = 18.00'

Side house. $\frac{12.83 + 10.0}{2} = \frac{11.415}{6.0}$

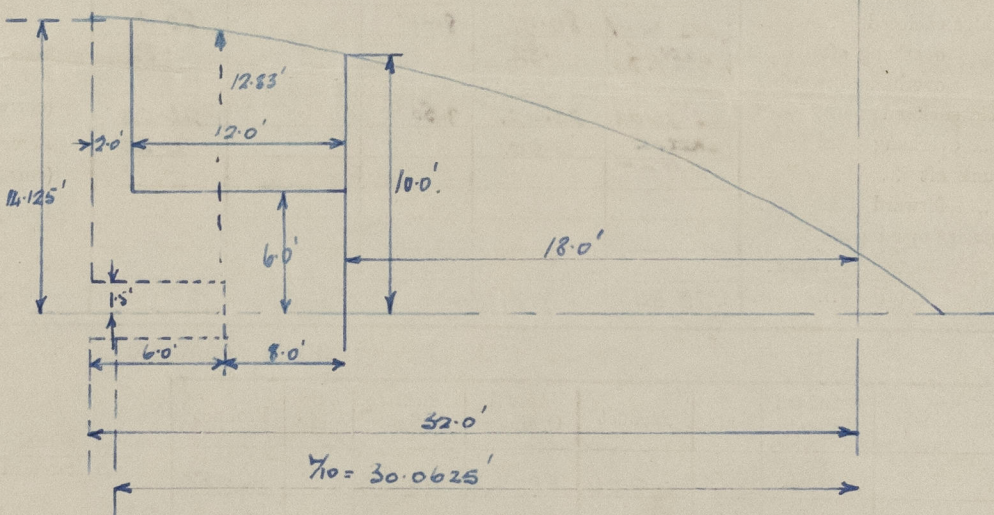
$\frac{5.415 \times 8.0}{11.415} = \frac{3.80}{21.80}$

Overshang = 8.0' - 3.80' = 4.20'

Side house $\frac{14.125 + 12.83}{2} = \frac{13.478}{6}$

$\frac{7.478 \times 4.0}{13.478} = \frac{2.22}{24.02}$

24.02. Equiv. length.



Trade of ship

International

Names of sister ships

"WOODLAND"

DUNDEE REPORT NO 9683

Builder's name and yard number

CALEDON S.B. & E CO. LTD - YARD NO 468.472

Owners

CURRIE LINE, LTD, LEITH, EDINBURGH 5.

Fee £

22



© 2021

Lloyd's Register
Foundation