

25 MAR 1949

Index. No. 39233
(For London Office only).

OWNER'S COPY

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "WOODLAND"	Official Number 182692	Nationality and Port of Registry British LEITH.	Gross Tonnage 2752	Date of Build 1949.	Port of Survey Dundee
Moulded Dimensions: Length 300.625 Breadth 46.0 Depth 23.25 (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 +100A1 (contemplated)

Depth for Freeboard (D). Moulded depth ... 23.25 Stringer plate ... (.34) .03 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ none Depth for Freeboard (D) = 23.28	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(23.28 - 20.04) 2.312 = +7.49"$ 3.24 (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ / If restricted by superstructures /	Round of Beam correction. Moulded Breadth (B) 46' Standard Round of Beam = $\frac{B \times 12}{50} =$ 11.04" Ship's Round of Beam = 9.00" Difference -2.04" Restricted to $\text{Correction} = \frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{2.04 \times 5770}{4} = +29"$
---	---	--

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	see 16.30	16.30	at 62' aft	/	16.30
" overhang ...	sketch 1.82	.91	at 7.19'	/	.91
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	see 80.91	80.91	8.00'	/	80.91
" overhang aft ...	sketch 1.82	.82		/	.82
" overhang forward ...					
Fore enclosed ...	see 24.02	24.02	7.50'	/	24.02
" overhang ...	sketch 4.20	4.20		/	4.20
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	128.34	127.16			127.16

Standard Height of Superstructure **6.51**
 " " R.Q.D. **/**
 Deduction for complete superstructure **35.37**
 Percentage covered $\frac{S}{L} =$ **42.69**
 " " $\frac{S_1}{L} =$ **42.30**
 " " $\frac{E}{L} =$ **/**
 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 x .2945 = 10.42"**

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
1/8 L from A.P. ...	17.825	4	✓	71.30	18.25	18.25	4	✓	73.00
2/8 L " ...	4.405	2	✓	8.81	4.75	4.75	2	✓	9.50
Amidships ...	-	4	✓	-	-	-	4	✓	-
2/8 L from F.P. ...	8.815	2	✓	17.63	9.25	9.25	2	✓	18.50
1/8 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

Mean actual sheer aft = **Excess**
 Mean standard sheer aft
 Mean actual sheer forward = **Excess**
 Mean standard sheer forward
 Length of enclosed superstructure forward of amidships = **7.12**
 " " aft of " = **7.12**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{3.95(75 - 2134)}{18 \times 5366} = - .12"$
 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 = **23.28**
 Summer freeboard = **3.48**
 Moulded draught (d) = **19.80**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **4.95 = 5"**
 Addition for Winter North Atlantic Freeboard (if required) = **5" + 2" = 7"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ **5583**

Tons per inch immersion at summer load water line

$T =$ **26.89**

Deduction = $\frac{\Delta}{40T}$ inches

= **5.19**

= **5 1/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{709 + 68}{1.36} = \frac{1.389}{1.36}$

Depth Correction ... **7.49**
 Deduction for superstructures ... **- 10.42**
 Sheer correction ... **- .12**
 Round of Beam correction ... **29**
 Correction for Thickness of Deck amidships ... **-**
 Other corrections, scantlings, etc. ... **-**

Summer Freeboard = **41.73**

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

Tropical Fresh Water Line above Centre of Disc **10 1/4"**
 Fresh Water Line " **5 1/4"**
 Tropical Line " **5"**
 Winter Line below " **5"**
 Winter North Atlantic Line " **7"**

Tropical Fresh Water Freeboard ... **31.53**
 Fresh Water " **21.71**
 Tropical " **20.00**
 Winter " **30.00**
 Winter North Atlantic " **41.73**

Woodland.

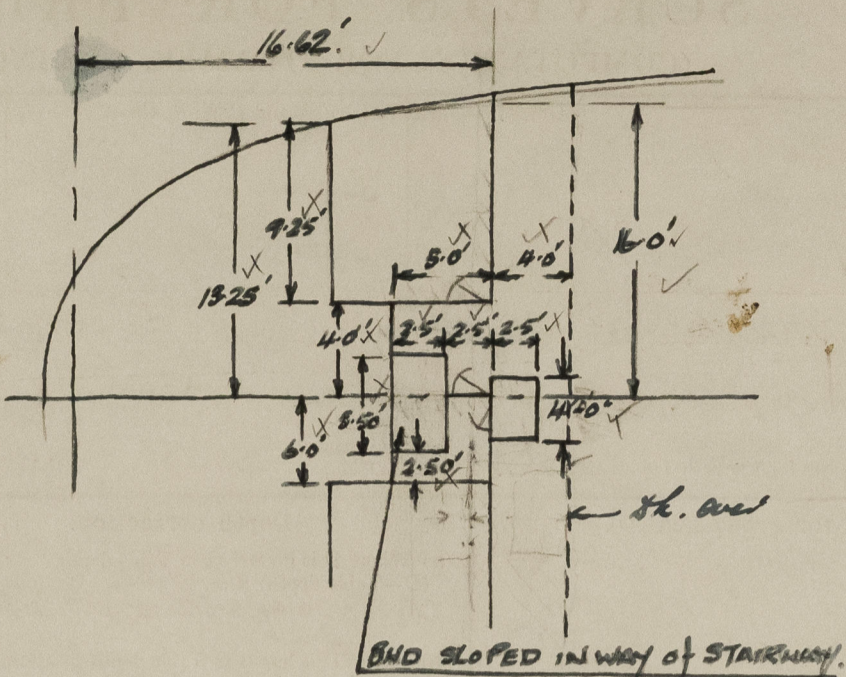
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Roop:- Length to bhd = 16.62'
 Less $\frac{5.0' \times 4.0'}{32.00'} = 0.63'$
 15.99'
 plus $\frac{4.0' \times 2.5'}{32.00'} = .31'$
 16.30'

Change 20.62' - 16.30' ✓
 = 4.32' - width of stairway

= 4.32' - 2.50' ✓

Equival. = 1.82' ✓



Bridge:-

Equival. length = $82.0' - \frac{25 \times 2'}{46}$
 82.00' - 1.09' ✓
 80.91' ✓

Change aft = 1.09' ✓

Change forward = NIL. ✓

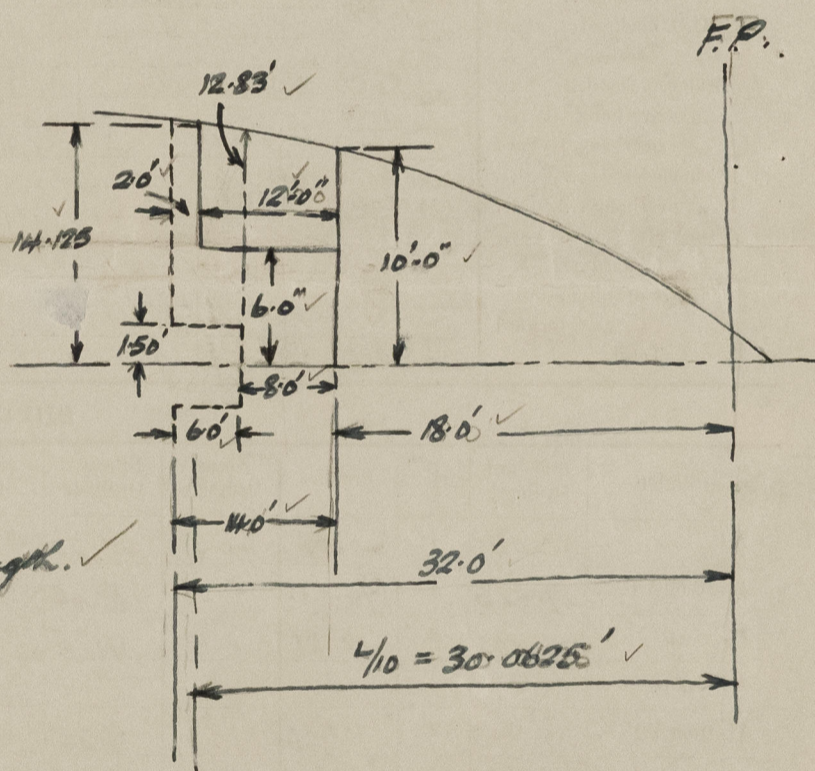
Forecastle:-

Length to Bulkhead ----- 18.00' ✓

Sidehouse = $\frac{12.83' + 10.00'}{2} = 11.415'$
 $\frac{5.415 \times 8.0'}{11.415} = 3.80'$
 21.80' ✓

Change = 8.00' - 3.80' ----- 4.20' ✓

Sidehouse = $\frac{14.125 + 12.83}{2} = 13.478'$
 $\frac{7.478 \times 14.00'}{13.478} = 2.22'$
 24.02' = equivalent length. ✓



Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee

MLD



© 2020

Lloyd's Register
Foundation