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(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

N<sup>o</sup> 34670

Ship's Name <b>DASHWOOD</b>	Official Number 180955	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 2156.29	Date of Build 1946	Port of Survey Sunderland
Moulded Dimensions: Length 268.56' Breadth 40.75' Depth 19.5'					Date of Survey 4.47
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4230 tons					Surveyor's Signature P. Morondace
Coefficient of fineness for use with Tables 74.5					Particulars of Classification 100A1 (Cont)

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... 19.50' Stringer plate ... 0.06' Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 19.56'	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D-Table depth) R = (19.56-17.90) 2.065 = +3.43" (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) 40.75' Standard Round of Beam = $\frac{B \times 12}{50} = 9.78'$ Ship's Round of Beam <i>equivalent</i> = 10' 9.89" Difference .11" Restricted to Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.11}{4} (1 - .6984) = -.013016$
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DEDUCTION FOR SUPERSTRUCTURES.				
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Effective Length (E)
Poop enclosed	64.50	64.50	7'-6"	64.50
" overhang	-	-	-	-
R.Q.D. enclosed	96.75	96.75	5'-10 1/2"	96.75
" overhang	-	-	-	-
Bridge enclosed	-	-	-	-
" overhang aft	-	-	-	-
" overhang forward	-	-	-	-
Fore enclosed	26.31	26.31	7'-6"	26.31
" overhang	-	-	-	-
Trunk aft	-	-	-	-
" forward	-	-	-	-
Tonnage opening aft	-	-	-	-
" " forward	-	-	-	-
Total	187.56	187.56	-	187.56

Standard Height of Superstructure	6.19'
" " R.Q.D.	4.247'
Deduction for complete superstructure	32.86'
Percentage covered $\frac{S}{L} =$	69.84%
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	
Percentage from Table, Line A. + B.	62.73%
(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 =	32.86 x .6273 = -20.62'

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	36.86	1	36.86	7"	26.54	1	26.54
1/4 L from A.P.	16.40	4	65.60	1 1/4"	11.81	4	47.24
1/2 L	4.05	2	8.10	1/4"	2.92	2	5.84
Amidships	-	4	-	-	-	4	-
3/4 L from F.P.	8.11	2	16.22	10 1/2"	10.24	2	20.42
1/4 L	32.80	4	131.20	38"	37.38	4	149.52
F.P.	73.72	1	73.72	78"	77.49	1	77.49
Total			331.70				327.05

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{4.65}{18} (.75 - .3492) = +.10'$

If limited on account of midship superstructure.

Actual R.Q.D. height = 5.875'  
Standard " " = 4.247'  
1.628'

Mean actual sheer aft = Deficient .7200% = 19.536"  
Mean standard sheer aft =

Mean actual sheer forward = Excess.  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = .1L.  
aft of amidships = .1L.

Std.	Act.	Std.	Act.
36.86	26.54	36.86	26.54
16.40	11.81	49.20	35.43
4.05	2.92	12.15	8.76
		98.21	70.73

72% = 72%

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> RAISED QUARTER. Depth to Freeboard Deck = 25.44' Summer freeboard = 7.60' Moulded draught (d) = 17.84' Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.46 = 4 1/2" Addition for Winter North Atlantic Freeboard (if required) = 6 1/2"	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 4198$ Tons per inch immersion at summer load water line T = 21.99. Deduction = $\frac{\Delta}{40 T}$ inches = 4.77" = 4 3/4"	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{743 + .68}{1.36} = 1.423$ Depth Correction ... 3.43' Deduction for superstructures ... 20.62' Sheer correction ... 10' Round of Beam correction ... .01' Correction for Thickness of Deck amidships ... 70.50' Other corrections, scantlings, etc. ... 74.03 20.63 +53.40 Summer Freeboard = 91.28
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-			
Tropical Fresh Water Line above Centre of Disc	9 1/4"	Tropical Fresh Water Freeboard	6 1/4"
Fresh Water Line	4 3/4"	Fresh Water	7'-2 1/2"
Tropical Line	4 1/2"	Tropical	7'-2 3/4"
Winter Line below	4 1/2"	Winter	7'-11 1/4"
Winter North Atlantic Line	6 1/2"	Winter North Atlantic	8'-1 1/4"



Dashwood.

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.

Sheer forward in excess of Standard  
" Aft 72.0% of Standard.

$$\frac{72-50}{75-50} = \frac{22}{25} = .880 \checkmark$$

88% of forward sheer allowed for effective sheer.

Sheer forward.

<u>ord</u>	<u>Amidships</u>	<u>1/3L from FP</u>	<u>1/6L from FP</u>	<u>FP.</u>
Standard sheer	0	8.11 ✓	32.80 ✓	73.72 ✓
Act. Sheer.	0	10.50 ✓	38.00 ✓	78.00 ✓
Diff.	0	2.39 ✓	5.20 ✓	4.28 ✓
Diff x .88	0	2.10 ✓	4.58 ✓	3.77 ✓
Std. Sheer.	0	8.11 ✓	32.80 ✓	73.72 ✓
Effective sheer ord.		10.21 ✓	37.38 ✓	77.49 ✓

Equivalent camber.

$$2 \times 6.5 \times 10 = 130$$

$$13.875 \times 10 = \frac{138.75}{268.75}$$

$$\frac{268.75}{40.75} = 6.595 \times \frac{3}{2} = 9.89"$$

Trade of ship

"COLLIER"

Names of sister ships

Builder's name and yard number

J. CROWN & SONS, L<sup>d</sup>

Owners

WM FRANCE FENWICK & CO L<sup>d</sup>

MLD

Fee £

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