

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Nº 33511

Ship's Name MIDDLESEX TRADER.	Official Number ANKER 169343	Nationality and Port of Registry British Netherlands Sunderland Rotterdam	Gross Tonnage 7240.97	Date of Build 1942	Port of Survey Sunderland
Moulded Dimensions: Length 417.5 Breadth 56.875 Depth 38.33 <i>See Sheer Curve.</i>				Date of Survey During Construction	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 17180 tons				Surveyor's Signature <i>W. E. Miller</i>	
Coefficient of fineness for use with Tables 777.				Particulars of Classification +100 A.I. with freeboard (contemplated)	

Depth for Freeboard (D). Moulded depth ... 38.33 Stringer plate6405 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 38.38	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(38.38 - 27.84) 3 = +31.62"$ (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) 56.875 ✓ Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.65" Ship's Round of Beam = 14" ✓ Difference Excess .35" Restricted to ✓ Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.35}{4} = -.09"$
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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						
F'cle enclosed ...						
" overhang ...						
Trunk aft ...						
" forward ...						
Tonnage opening aft ...						
" " forward						
Total ...						

Standard Height of Superstructure ...

" " R.Q.D. ...

Deduction for complete superstructure

Percentage covered $\frac{S}{L} =$ **Nil.**

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$

Percentage from Table, Line A.
(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 = **Nil.**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	51.75	1		51.75	42.00	42.00	1		42.00	Mean actual shear aft = Mean standard shear aft =
$\frac{1}{4}$ L from A.P. ...	23.03	4		92.12	12.00	12.00	4		48.00	
$\frac{3}{4}$ L " ...	5.69	2		11.38			2			Mean actual shear forward = Mean standard shear forward =
Amidships ...		4					4			
$\frac{1}{4}$ L from F.P. ...	11.38	2		22.76			2			Length of enclosed superstructure forward of amidships = " " aft of " =
$\frac{3}{4}$ L " ...	46.06	4		184.24	534.66	34.66	4		138.64	
F.P. ...	103.50	1		103.50	93.00	93.00	1		93.00	
Total ...				465.75					321.64	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{144.11}{18} \times .75 = +6.01"$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 38.38 Summer freeboard = 11.58 Moulded draught (d) = 26.80 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.70 = 6$\frac{3}{4}$" Addition for Winter North Atlantic Freeboard (if required) = ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 13764 Tons per inch immersion at summer load water line $T =$ 49.44 Deduction = $\frac{\Delta}{40T}$ inches = 6.96 = 7"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{777 + .68}{1.36} = 1.457/1.36$ Depth Correction ... 31.62 - Deduction for superstructures ... - Sheer correction ... 6.01 - Round of Beam correction ... - .09 Correction for Thickness of Deck amidships ... - Other corrections, scantlings, <i>to correspond to a summer moulded draught of 26'-9$\frac{1}{2}$" (26'-9$\frac{5}{8}$" actual)</i> 12.27 - 49.90 .09 Summer Freeboard = 179.00	83.26 89.19 82.8 22 (0.42) 49.81 179.00
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Water~~ Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ...	133 $\frac{1}{4}$ "	35 cm.	Tropical Fresh Water Freeboard ...	10'-5 $\frac{1}{4}$ "	318 "
Fresh Water Line " " ...	7 $\frac{3}{4}$ "	18 "	Fresh Water " " ...	11'-0"	335 "
Tropical Line " " ...	6 $\frac{3}{4}$ "	17 "	Tropical " " ...	11'-0 $\frac{1}{4}$ "	336 "
Winter Line below " " ...	6 $\frac{3}{4}$ "	17 "	Winter " " ...	12'-13 $\frac{1}{4}$ "	370 "
Winter North Atlantic Line " " ...	✓		Winter North Atlantic " " ...	✓	

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.

Load displacement at 27'-0" extreme draft = 13800 tons.
Loss Per Inch = 49.44.

For basis computation see "Thistle Dale" 36960

omit

Trade of ship ☒

Names of sister ships SS. THISTLEDALE SLD. RPT. N° 33475

Builder's name and yard number Messrs. J. L. Thompson & Sons Ltd. N° 621.

Owners Trades Navigation Co Ltd.

Fee £ 18:

Charges charged on completion



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Foundation