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15 AUG 1951

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SUNDERLAND RPT. NO. 35554

Index No. 42872

(For London Office only.)

2 APR 1951

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "BRITISH CRAFTSMAN"	Official Number 184438	Nationality and Port of Registry BRITISH. LONDON.	Gross Tonnage 8600 APPROX. 8697	Date of Build 1951	Port of Survey SUNDERLAND
Moulded Dimensions: Length 465-5 1/2 Breadth 61-9 Depth 34-1					Date of Survey DURING CONSTRUCTION.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18,231 tons					Surveyor's Signature Paul H. Duncan
Coefficient of fineness for use with Tables 0.7696 .770.					Particulars of Classification +100A1 carrying Pet., in Bulk.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 34.08 ... 34.08	(a) Where D is greater than Table depth (D-Table depth) R = (34.08 - 30.90) 3 = +9.72"	Moulded Breadth (B) 61.75'
Stringer plate ... 3/406	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = 14.82$
Sheathing on exposed deck ✓	If restricted by superstructures ✓	Ship's Round of Beam = 15 1/2
$T \left(\frac{L-S}{L} \right) =$		Difference .68
Depth for Freeboard (D) = 34.14		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times 57.24 = -1.0$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equiv.</i> ...	96.80	96.80	8.0	✓	96.80
" overhang <i>Equiv.</i> ...	1.33	.67			.67
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>Equiv.</i> ...	47.67	47.67	8.0	✓	47.67
" overhang aft <i>Equiv.</i> ...	3.00	2.25			2.25
" overhang forward <i>Equiv.</i>83	.42			.42
F'cle enclosed <i>Equiv.</i> ...	47.69	47.69	8.0	✓	47.69
" overhang <i>Equiv.</i> ...	2.64	2.63			2.63
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward...					
Total ...	199.96	198.13			198.13

Standard Height of Superstructure	7.50'
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	43.15
" " $\frac{S_1}{L} =$	42.76
" " $\frac{E}{L} =$	42.76
Percentage from Table, Line A. TANKER.	33.76
(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 = 33.76 + 42 = 14.18"	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	56.35	1	56.35	56	56.00	1	56.00
1/2 L from A.P. ...	25.075	4	100.30	25	25.00	4	100.00
2/3 L " ...	6.20	2	12.40	6.25	6.25	2	12.50
Amidships ...	✓	4	✓	✓	✓	4	✓
2/3 L from F.P. ...	12.40	2	24.80	12.25	12.25	2	24.50
1/2 L " ...	50.15	4	200.60	50.25	50.25	4	201.00
F.P. ...	112.69	1	112.69	111.25	111.25	1	111.25
Total ...			507.14				505.25

Mean actual sheer aft = **DEFICIENT**

Mean actual sheer forward = **DEFICIENT** **.9947**

Length of enclosed superstructure forward of amidships = **TANKER.**

Mean actual sheer forward = **DEFICIENT** **.9947**

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

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

If limited on account of midship superstructure.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Ft. Depth to Freeboard Deck = 34.14 Summer freeboard = 6.60 Moulded draught (d) = 27.54 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.89 = 7" Addition for Winter North Atlantic Freeboard if required = 6.89 + 4.63 = 11.52 = 11 1/2"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 173.12$ Tons per inch immersion at summer load water line $T = 58.15$ Deduction = $\frac{\Delta}{40 T}$ inches = 7.44 = 7 1/2"	TABULAR FREEBOARD corrected for Fluk Deck (if required) Correction for coefficient $\frac{.770 + .68}{1.36} = \frac{1.45}{1.36}$ Depth Correction ... 9.72 Deduction for superstructures ... 14.18 Sheer correction06 Round of Beam correction ... ✓ Correction for Thickness of Deck amidships ... ✓ Other corrections, scantlings, etc. ... ✓ 9.78 14.28 -4.50 Summer Freeboard = 79.27
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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 ...	14 1/2"	Tropical Fresh Water Freeboard	5' 4 3/4"
Fresh Water Line " " ...	7 1/2"	Fresh Water " " ...	5' 1 3/4"
Tropical Line " " ...	7"	Tropical " " ...	6' 0 1/4"
Winter Line below " " ...	7"	Winter " " ...	7' 2 1/4"
Winter North Atlantic Line " " ...	11 1/2"	Winter North Atlantic " " ...	7' 6 3/4"

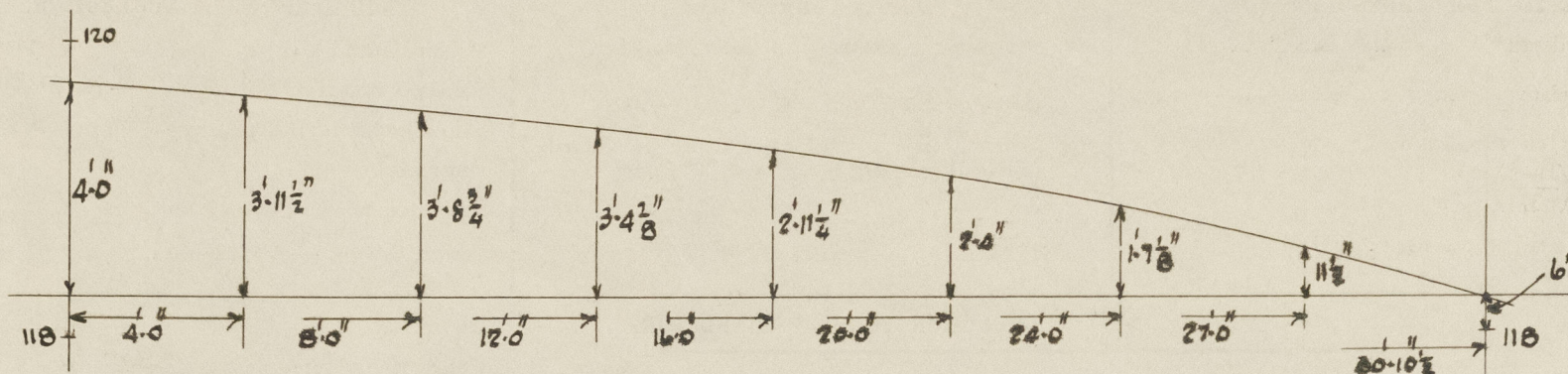
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Displacement Extreme at Summer draft = 17,312 Tons S.W.

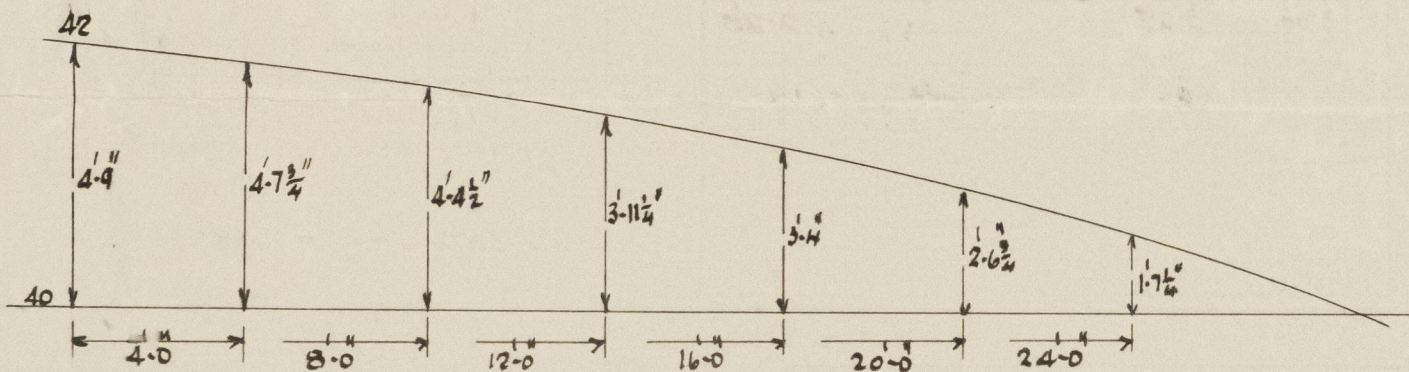
Tons per inch " = 58.15

Stringer = $\frac{3}{4}$ "

Keel = 1"



- BRIDGE FRONT OFFSETS -



- POOP FRONT OFFSETS -

Poop. at Side = 93.63.

$2\frac{2}{3} \times 4.75 = 3.17$.

Equip. Enc. length = 96.80.

O/hang. = $\frac{4.50}{3.17}$.

Equip. O/hang. = $\frac{1.33}{1.33}$.

Bridge at Side = 45.00.

$2\frac{2}{3} \times 4.00 = 2.67$.

Equip. Enc. length = 47.67.

O/hang. fwd = $\frac{3.50}{2.67}$.

Equip. O/hang. fwd. = $\frac{.83}{.83}$.

O/hang. aft = $\frac{3.00}{3.00}$.

Felt. Fwd. for 179 = 24.21.

Side House for 171-179 = 15.36.

$\frac{18.00 \times 17.07}{20.00} = 39.37$.

Side House for 165-171 = 8.12.

$\frac{13.5 \times 14.43}{24.00} = 8.12$.

Total Equip. length = 47.69.

Equip. O/hang. $18.00 - 15.36 = 2.64$.

Effective " $2.64 \times .9947 = 2.63$.

Trade of ship TANKER.

Names of sister ships "BRITISH BUILDER"

Builder's name and yard number Wm. Delfino & Sons Ltd. Yard No. 483

Owners The British Tanker Co. Ltd.

Fee will be charged on £50.