

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.) TUG.

Ship's Name TWIN SCREW TUG. "REVUE"	Official Number 167339	Nationality and Port of Registry BRITISH. LONDON.	Gross Tonnage 245.37	Date of Build 1939.	Port of Survey HULL.
Moulded Dimensions: Length 105.0' Breadth 26.5' Depth 13.0'					Date of Survey WHILE BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth 513 tons					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables .68 (Actual .584)					Particulars of Classification 100 A.I. FOR TOWING SERVICES. (CONTEMPLATED)

Depth for Freeboard (D). Moulded depth ... 13.00' Stringer plate32" Sheathing on exposed deck (SEE SKETCH) 5.25' $T \left(\frac{L-S}{L} \right) = .21 \times \frac{96.25}{105.0} = .19'$ Depth for Freeboard (D) = 13.22'	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = (13.22 - 4.00) .808 = + 5.03" (b) Where D is less than Table depth (if allowed) (Table depth - D) R = 6.22 If restricted by superstructures <input checked="" type="checkbox"/>	Round of Beam correction. Moulded Breadth (B) 26.5' Standard Round of Beam = $\frac{B \times 12}{50} =$ 6.36" Ship's Round of Beam = 7 1/2" Difference 1.14" Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.14}{4} = .285$
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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 ...					

FLUSH DECK!

Standard Height of Superstructure	<input checked="" type="checkbox"/>
.. R.Q.D.	<input checked="" type="checkbox"/>
Deduction for complete superstructure	<input checked="" type="checkbox"/>
Percentage covered $\frac{S}{L} =$	<input checked="" type="checkbox"/>
.. $\frac{S_1}{L} =$	<input checked="" type="checkbox"/>
.. $\frac{E}{L} =$	<input checked="" type="checkbox"/>
Percentage from Table, Line A.	<input checked="" type="checkbox"/>
(corrected for absence of forecastle (if required))	<input checked="" type="checkbox"/>
Percentage from Table, Line B.	<input checked="" type="checkbox"/>
(corrected for absence of forecastle (if required))	<input checked="" type="checkbox"/>
Interpolation for bridge less than .2L (if required)	<input checked="" type="checkbox"/>
Deduction =	<input checked="" type="checkbox"/>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	20.50	1		20.50	18.00	18.00	1		18.00
1/4 L from A.P. ...	9.12	4		36.48	6.25	6.25	4		25.00
3/4 L ..	2.25	2		4.50	.50	.50	2		1.00
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	4.51	2		9.02	7.71	7.71	2		15.42
1/4 L ..	18.24	4		72.96	26.87	26.87	4		107.48
F.P. ...	41.00	1		41.00	63.45	63.45	1		63.45
Total ...				184.46					230.35

Mean actual sheer aft = *Deficient*
Mean standard sheer aft = *Deficient*

Mean actual sheer forward = *Excess*
Mean standard sheer forward = *Excess*

Length of enclosed superstructure forward of amidships = *Flush Deck*
.. aft of .. = *Deck*

STANDARD	SHEER AFT.	ACTUAL
20.50 - 1 - 20.50	18.00 - 1 - 18.00	18.00 - 1 - 18.00
9.12 - 3 - 27.36	6.25 - 3 - 18.75	6.25 - 3 - 18.75
2.25 - 3 - 6.75	.50 - 3 - 1.50	.50 - 3 - 1.50
- - 1 - -	- - 1 - -	- - 1 - -
54.61	38.25	38.25

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{45.89}{18} \times .75 = -1.91$
If limited on account of midship superstructure ☒

If limited to maximum allowance of 1 1/2 ins. per 100 ft. **YES 1.54"**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 13.24' Summer freeboard = 1.29' Moulded draught (d) = 11.95' Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.99 = 3" Addition for Winter North Atlantic Freeboard (if required) = 5"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 571$ Tons per inch immersion at summer load water line $T = 5.58$ Deduction = $\frac{\Delta}{40T}$ inches = 2.56 = 2 1/2" HULL DISPL. = 574 T.P.I. 12.0' 5.74 5.15 10.0' 4.47 5.15 8.0' 3.27 4.73	TABULAR FREEBOARD corrected for Flush Deck (if required) 12.04" Correction for coefficient <input checked="" type="checkbox"/> Depth Correction ... 5.03 Deduction for superstructures ... 1.57 Sheer correction28 Round of Beam correction24 Correction for Thickness of Deck amidships ... 5.27 Other corrections, scantlings, etc. ... 1.85 Summer Freeboard = 15.49"
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Deck:

Tropical Fresh Water Line above Centre of Disc ...	5 1/2"	Tropical Fresh Water Freeboard ...	1 3/2"
Fresh Water Line ..	2 1/2"	Fresh Water ..	0 10"
Tropical Line ..	3"	Tropical ..	1 1"
Winter Line below ..	3"	Winter ..	1 0 1/2"
Winter North Atlantic Line ..	5"	Winter North Atlantic ..	1 6 1/2"

19 SEP 1939

Revised.

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.

Effective Sheer Ordinates Forward. (Sheer aft = 70.04 % of Standard).

	$\frac{3}{16}L$	$\frac{1}{16}L$	F.P.
Actual sheer ordinates forward.	8.50 ✓	29.00 ✓	69.00 ✓
Standard " " "	4.51 ✓	18.24 ✓	41.00 ✓
Difference	3.99 ✓	10.76 ✓	28.00 ✓
Difference $\times \frac{20.04}{25.00}$	3.20 ✓	8.63 ✓	22.45 ✓
Standard sheer ordinates forward	4.51 ✓	18.24 ✓	41.00 ✓
Effective " " "	7.71 ✓	26.87 ✓	63.45 ✓

Trade of ship FOR TOWING SERVICES.

Names of sister ships NONE

Builder's name and yard number MESSRS COCHRANE & SONS. LTD SELBY. YARD No 1202.

Owners MESSRS BEIRA WORKS. LTD. LONDON.

TO BE CHARGED WITH FIRST ENTRY.

Fee £

[Signature]



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Foundation