

AUG 29 1938

Rpt. C.11 (Comp.).

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(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.) HAVRE N° 7980.

Ship's Name <u>STEEL SCREW TUG.</u> <u>"ABEILLE N°21"</u> H.M.	Official Number ...	Nationality and Port of Registry <u>British</u> <u>FRENCH</u> <u>HAVRE</u> <u>Marine</u>	Gross Tonnage 232.	Date of Build 3-1925.	Port of Survey <u>HAVRE.</u>
Moulded Dimensions: Length <u>110'-6"</u> Breadth <u>25'-6"</u> Depth <u>13'-6"</u>					Date of Survey <u>COMPLETED 25th AUG. 1938.</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature <u>J. Beckmann</u>
Coefficient of fineness for use with Tables <u>.68</u> (Actual coefficient less than .68).					Particulars of Classification <u>* 100 A1.</u> <u>FOR TOWING PURPOSES.</u> <u>S.S. HAV. N° 3 - 10, 37 7.38.</u>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <u>13'-50"</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(13'-74" - 7'-36") .850 = 5'-42"</u>	Moulded Breadth (B) <u>25'-5"</u>
Stringer plate ... <u>32"</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>6'-38"</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \underline{6'-12"} \checkmark$
Sheathing on exposed deck = <u>3"</u>		Ship's Round of Beam $6\frac{1}{2} = \underline{6'-50"} \checkmark$
$T \left(\frac{L-S}{L} \right) = .25 \times \frac{91.75}{110.50} = \underline{.21} \checkmark$	If restricted by superstructures <u>✓</u>	Difference <u>excess</u> = <u>38"</u>
Depth for Freeboard (D) = <u>13'-74"</u>		Restricted to Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{38}{4} = \underline{9.5"} \checkmark$

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 ...	✓				
Forecastle enclosed ...	✓				
" overhang ...	✓				
Trunk aft ...	✓				
" forward ...	✓				
Tonnage opening aft ...	✓				
" " forward ...	✓				
Total ...					

Flush Deck.

Standard Height of Superstructure	✓
" " R.Q.D.	✓
Deduction for complete superstructure	✓
Percentage covered $\frac{S}{L} =$	✓
" " $\frac{S_1}{L} =$	✓
" " $\frac{E}{L} =$	✓
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 = ✓	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>21.05</u>	1		<u>21.05</u>	<u>46"</u> ✓	<u>21.05</u>	1		<u>21.05</u> ✓
$\frac{1}{4}$ L from A.P. ...	<u>9.37</u>	4		<u>37.48</u>	<u>24½"</u> ✓	<u>9.37</u>	4		<u>37.48</u> ✓
$\frac{3}{4}$ L " ...	<u>2.32</u>	2		<u>4.64</u>	<u>8"</u> ✓	<u>2.32</u>	2		<u>4.64</u> ✓
Amidships ...	-	4		-	-	-	4		-
$\frac{3}{4}$ L from F.P. ...	<u>4.63</u>	2		<u>9.26</u>	<u>2"</u> ✓	<u>2.00</u>	2		<u>4.00</u> ✓
$\frac{1}{4}$ L " ...	<u>18.73</u>	4		<u>74.92</u>	<u>18"</u> ✓	<u>13.00</u>	4		<u>52.00</u> ✓
F.P. ...	<u>42.10</u>	1		<u>42.10</u>	<u>33"</u> ✓	<u>33.00</u>	1		<u>33.00</u> ✓
Total ...				<u>189.45</u>					<u>152.17</u> ✓

Mean actual sheer aft = Excess
Mean standard sheer aft

Mean actual sheer forward = Deficient
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } Deficient
" " aft of " = } sheer.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{21L} \right) = \frac{37.28}{18} \times .75 = \underline{+1.55"} \checkmark$
If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>13'-78"</u> Summer freeboard = _____ Moulded draught (d) = _____ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ Addition for Winter North Atlantic Freeboard (if required) = _____	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ _____ Tons per inch immersion at summer load water line $T =$ _____ Deduction = $\frac{\Delta}{40T}$ inches = _____	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient ✓ Depth Correction ... <u>5.42</u> ✓ Deduction for superstructures ... <u>1.55</u> ✓ Sheer correction ... <u>1.09</u> ✓ Round of Beam correction ... <u>.48</u> ✓ Correction for Thickness of Deck amidships ... <u>.09</u> ✓ Other corrections, scantlings, etc. ... _____ Summer Freeboard = <u>20'-07"</u> = 510%
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, 3" Wood, Steel, Deck.

EXISTING FREEBOARDS	Tropical Fresh Water Line above Centre of Disc ...	121 %	Tropical Fresh Water Freeboard ...	311 %
REASSIGNED BEING MORE FAVOURABLE THAN THOSE COMPUTED UNDER THE CONVENTION.	Fresh Water Line " " ...	83 %	Fresh Water " " ...	349 %
	Tropical Line " " ...	38 %	Tropical " " ...	394 %
	Winter Line below " " ...	38 %	Winter " " ...	470 %
	Winter North Atlantic Line " " ...	88 %	Winter North Atlantic " " ...	520 %

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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.

No alterations have been made to the vessel which could affect the freeboard.

Done 26th August 1938

J. Frechmann

Trade of ship

For Towing purposes.

Names of sister ships

Builder's name and yard number

J. F. Renoldson & Sons Ltd. South Shields. Yard N^o 325.

Owners

S^{oci}te de Remorquage et de Sauvetage "Les Abeilles". Le Havre

Fee £ 4-0-0. Ex^gs. 4/- TOTAL. £ 4-4-0.



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