

AMERICAN BUREAU of SHIPPING

LOAD LINE CALCULATION

NAME OF VESSEL: S.S. "ABERCOS"	GROSS TONS 6076	OFFICIAL NUMBER 219,477 (U.S.)	PORT OF REGISTRY --	YEAR BUILT 1920	CLASSIFICATION --																																																																																																																											
TYPE: Cargo Vessel																																																																																																																																
OWNER: Sir R. Roper & Company			BUILDER: G. M. Standifer Const. Co. HULL No. 8																																																																																																																													
L = 402'-0"	FREEBOARD DEPTH: MOULDED D = 34.50		DEPTH CORRECTION: D _f = 34.54		PORT OF SURVEY: --																																																																																																																											
B = 53'-0"	STRINGER = .04 $\frac{T(L-S)}{L}$		402 = 26.80		DATE OF SURVEY: --																																																																																																																											
D = 34'-6"			15 7.74 3 = 23.22		SURVEYOR'S NAME: --																																																																																																																											
D _f = 34.54'	D _f = 34.54																																																																																																																															
BLOCK COEFFICIENT AT .85 D: Disp. to o.s. of shell. Mold. dimns. increased to suit. $\frac{35 \times 14290}{29.40 \times 402.5 \times 53.15} = .794$			COEFFICIENT CORRECTION: $\frac{.794 + .88}{1.36} \times 72.12 = 78.15$																																																																																																																													
<p>SUPERSTRUCTURE CORRECTION:</p> <p>Open 137'-8" = 28.42 + $(\frac{42.5}{53} \times 9.25) + (\frac{10.5}{53} \times 9.25) \times .864 =$ FORECASTLE 37.42 8'-0"</p> <p>BRIDGE None = -</p> <p>POOP 34'-0" = 34.00 8'-0"</p> <p>TRUNK None = -</p> <p>(Forecastle sheer corr. = .864)</p> <p>BRIDGE: $\frac{E}{L} = \frac{71.42}{402} = .1777$</p> <p>PERCENTAGE ALLOWED = .0888</p> <p>100 PER CENT ALLOWANCE PERCENTAGE ALLOWED SUPERSTRUCTURE DEDUCTION = 42 $\times .0888 = 3.73$</p>																																																																																																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">SHEER:</th> <th colspan="4">VESSEL</th> <th colspan="4">RULE</th> </tr> <tr> <th>STA.</th> <th>HEIGHT</th> <th>ORDINATE</th> <th>MULT.</th> <th>F (A)</th> <th>ORDINATE</th> <th>MULT.</th> <th>F (A)</th> <th>ORDINATE</th> <th>MULT.</th> <th>F (A)</th> </tr> </thead> <tbody> <tr> <td>A. P.</td> <td>.1 L + 10</td> <td>50.20</td> <td>1</td> <td>50.20</td> <td>66.00</td> <td>1</td> <td>66.00</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td>1/8</td> <td>.0445 L + 4.45</td> <td>22.34</td> <td>4</td> <td>89.36</td> <td>18.37</td> <td>4</td> <td>73.48</td> <td></td> <td>4</td> <td></td> </tr> <tr> <td>1/4</td> <td>.011 L + 1.1</td> <td>5.52</td> <td>2</td> <td>11.04</td> <td>.25</td> <td>2</td> <td>.50</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>-</td> <td>-</td> <td></td> <td>4</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> <td>4</td> <td></td> </tr> <tr> <td>1/8</td> <td>.022 L + 2.2</td> <td>11.04</td> <td>2</td> <td>22.08</td> <td></td> <td>2</td> <td></td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>1/4</td> <td>.089 L + 8.9</td> <td>44.68</td> <td>4</td> <td>178.72</td> <td>34.75</td> <td>4</td> <td>139.00</td> <td></td> <td>4</td> <td></td> </tr> <tr> <td>F. P.</td> <td>.2 L + 20</td> <td>100.40</td> <td>1</td> <td>100.40</td> <td>126.75</td> <td>1</td> <td>126.75</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td colspan="4"></td> <td>451.80</td> <td colspan="4"></td> <td>405.73</td> <td colspan="2"></td> </tr> <tr> <td colspan="4"></td> <td>405.73</td> <td colspan="4"></td> <td colspan="2"></td> </tr> </tbody> </table> <p>SHEER CORRECTION $\frac{231}{267.56} \times 86.4 \times \frac{46.07}{18} = 2.56 \times (\frac{.76 - .1783}{2}) = 1.69$</p>						SHEER:				VESSEL				RULE				STA.	HEIGHT	ORDINATE	MULT.	F (A)	ORDINATE	MULT.	F (A)	ORDINATE	MULT.	F (A)	A. P.	.1 L + 10	50.20	1	50.20	66.00	1	66.00		1		1/8	.0445 L + 4.45	22.34	4	89.36	18.37	4	73.48		4		1/4	.011 L + 1.1	5.52	2	11.04	.25	2	.50		2		-	-		4			4			4		1/8	.022 L + 2.2	11.04	2	22.08		2			2		1/4	.089 L + 8.9	44.68	4	178.72	34.75	4	139.00		4		F. P.	.2 L + 20	100.40	1	100.40	126.75	1	126.75		1						451.80					405.73							405.73						
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CAMBER:			FRESH WATER ALLOWANCE:																																																																																																																													
STANDARD $\frac{53 \times 12}{80} = 12.72$			$\Delta = 12760$																																																																																																																													
VESSEL = 12.59			$T = 43.8$																																																																																																																													
DIFFERENCE = $\frac{.13}{4} \times .826 = .03$			$\frac{12760}{40 \times 43.8} = 7\frac{1}{4}$ INCHES																																																																																																																													

TABLE AT 402 FT. 72.12

CORRECTED TO .794 78.15

DEPTH + 23.22
101.37

SUPERSTRUCTURE - 3.73
97.64

SHEER + 1.69
99.33

CAMBER + .03
99.36

OTHER CORRECTIONS (IF ANY) 1.36 *
98.00

FREEBOARD

8'-2"

MOULDED DEPTH D 34'-6"

STRINGER PLATE $\frac{1}{2}$ "

OR WOOD DECK -

34'-6 $\frac{1}{2}$ "

FREEBOARD 8'-2"

MOULDED DRAFT 26'-4 $\frac{1}{2}$ "

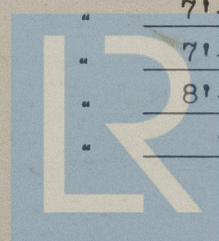
EXTREME DRAFT 26'-6 $\frac{3}{4}$ "

T & W = $\frac{26'-4\frac{1}{2}" - 6\frac{1}{2}" }{4} = 6\frac{1}{2}"$

TF = 6 $\frac{1}{2}" + 7\frac{1}{4}" = 13\frac{3}{4}"$

*) To agree with previously assigned Board of Trade freeboard

FREEBOARD RECOMMENDED AMIDSHIPS FROM CENTER OF DISC TO TOP OF Steel Upper DECK: 8'-2"					
TROPICAL FRESH WATER LINE	13 $\frac{3}{4}$	INCHES ABOVE CENTER OF DISC.	CORRESPONDING FREEBOARD	7'-0 $\frac{1}{4}$ "	
FRESH WATER LINE	7 $\frac{1}{4}$	" " " " " "		7'-6 $\frac{3}{4}$ "	
TROPICAL LINE	6 $\frac{1}{2}$	" " " " " "		7'-7 $\frac{1}{2}$ "	
WINTER LINE	6 $\frac{1}{2}$	" BELOW " " " "		8'-8 $\frac{1}{2}$ "	
WINTER NORTH ATLANTIC LINE	-	" " " " " "		-	



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LOAD LINE SURVEY:

Has the vessel been surveyed in accordance with Paragraph 12 of the Regulations? **NOTE: For data regarding conditions see copy of Freeboard Survey Report No. 4852 of Dec. 9, 1940.**

Was the general structural condition found satisfactory?

PROTECTION OF OPENINGS:

Are weather deck hatchways efficiently constructed and equal to rule requirements? If not, wherein are they deficient?

Are flush bunker scuttles to rule requirements?

Are companionways to rule requirements?

Has the poop an efficient steel bulkhead at fore end?

Thickness of plating?

Coaming?

Stiffeners? Spaced?

Bracketed or clipped?

Are openings closed with Class I or II appliances or less?

Has the bridge an efficient steel bulkhead at after end?

Thickness of plating?

Coaming?

Stiffeners? Spaced?

Bracketed or clipped?

Are openings closed with Class I or II appliances or less?

Has the bridge an efficient steel bulkhead at fore end?

Thickness of plating?

Coaming?

Stiffeners? Spaced?

Bracketed or clipped?

Are openings closed with Class I or II appliances or less?

Has the forecastle an efficient steel bulkhead at after end?

Thickness of plating?

Coaming?

Stiffeners? Spaced?

Bracketed or clipped?

Are openings closed with Class I or II appliances or less?

Are exposed parts of casings efficiently constructed?

Thickness of plating?

Coaming?

Stiffeners?

Spaced?

How are exposed machinery casing openings on freeboard deck closed?

Height of door sill?

Have fiddley hatches strong steel covers?

Are ventilator coamings of proper height and strongly constructed?

Means of closing?

Are there cargo or coaling ports in side below freeboard deck?

Are doors watertight and efficient?

Are airports fitted

with deadlight covers where required?

Are scuppers and sanitary discharges fitted with proper valves where required?

Are airpipes from ballast and other tanks of proper height above deck?

Are they fitted with efficient closing appliances?

GUARD RAILS:

Are efficient open rails or bulwarks fitted on exposed portions of freeboard and superstructure decks?

FREEING PORTS:

Are freeing ports provided as required by rule?

PROTECTION OF CREW:

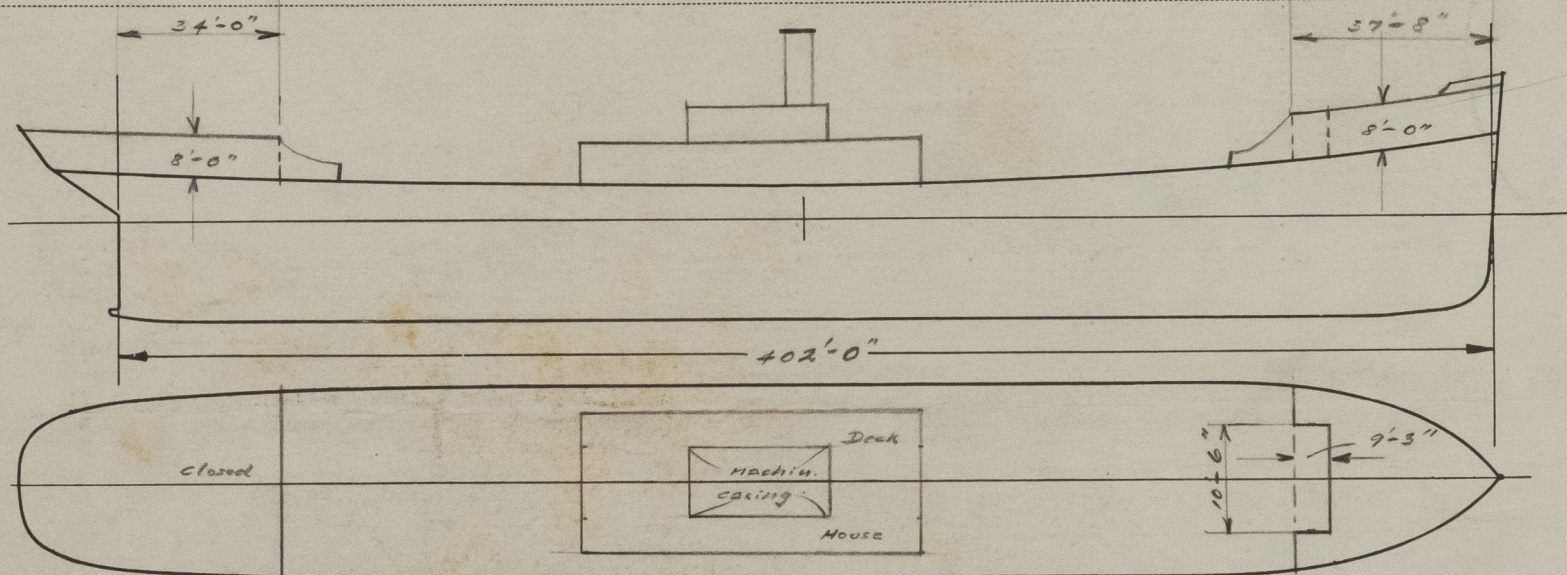
Where is crew berthed? Are satisfactory means provided for the protection of the crew in getting to and from their quarters?

VESSELS CARRYING TIMBER DECK CARGOES:

Does the vessel comply with the supplementary conditions for vessels carrying timber deck cargoes, as set forth in Part 6 of the Regulations?

TANKERS AND SPECIAL TYPES:

Does the vessel comply with the supplementary conditions for tankers, as set forth in Part 7 of the Regulations?



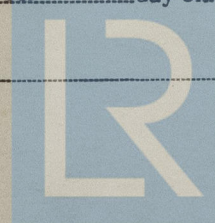
Show hereon arrangement of erections, location of their bulkheads and overhangs.

The Freeboards, as stated on the other side, being in accordance with the Regulations, it is recommended that the same be assigned.

Chief Surveyor.

Approved at a meeting of the Committee of the American Bureau of Shipping on the 27th day of April 1931

Secretary.



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