

20 SEP 1932

Index. No. **34236**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~
having POOP and Forecastle.

(Type of Superstructures.)

Port of Survey Falmouth

Date of Survey 15/9/32. 16/9/32.

Name of Surveyor R. C. Moffitt

Particulars of Classification +100A1
Carrying Petroleum in bulk ✓

Ship's Name HERBJÖRN	Nationality and Port of Registry NORWEGIAN. MOSS	Official Number 8038	Gross Tonnage 1929.2	Date of Build 1929.2
--------------------------------	--	--------------------------------	--------------------------------	--------------------------------

Moulded Dimensions: Length 440.0 Breadth 59.0 Depth 36.0
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1774.0 tons
Coefficient of fineness for use with Tables .804

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>35.0</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(35.07 - 29.33) 3 = +17.22"</u>	Moulded Breadth (B) <u>59.0</u>
Stringer plate <u>.06.07</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{14.16}{50} = \underline{14.76}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u>	If restricted by superstructures <u>✓</u>	Ship's Round of Beam = <u>14.76</u>
Depth for Freeboard (D) = <u>35.07</u>		Difference <u>.60</u>
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.60}{4} \times .699 = - .10$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>95'-8"</u>	<u>95.67</u>	<u>8'-0"</u>	<u>✓</u>	<u>95.67</u>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Forecastle enclosed	<u>36'-9"</u>	<u>36.75</u>	<u>8'-0"</u>	<u>✓</u>	<u>36.75</u>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<u>132.42</u>	<u>132.42</u>			<u>132.42</u>

Standard Height of Superstructure <u>7.50</u>
" " R.Q.D. <u>✓</u>
Deduction for complete superstructure <u>42.0</u>
Percentage covered $\frac{S}{L} = \frac{30.10}{36} = 83.6\%$
" " $\frac{S_1}{L} = \frac{30.10}{36} = 83.6\%$
" " $\frac{E}{L} = \frac{30.10}{36} = 83.6\%$
Percentage from Table, Line A. <u>✓</u>
(corrected for absence of forecastle (if required)) <u>✓</u>
Percentage from Table, Line B. <u>TANKER</u> <u>21.10%</u>
(corrected for absence of forecastle (if required)) <u>✓</u>
Interpolation for bridge less than 2L (if required) <u>✓</u>
Deduction = $42.0 \times .211 = - 8.86"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>54.00</u>	<u>1</u>	<u>54.00</u>	<u>35.2</u>	<u>36.50</u>	<u>36.50</u>	<u>1</u>	<u>36.50</u>	<u>36.50</u>
1/4 L from A.P.	<u>24.03</u>	<u>4</u>	<u>96.12</u>	<u>7</u>	<u>4.80</u>	<u>4.80</u>	<u>4</u>	<u>19.20</u>	<u>19.20</u>
3/4 L "	<u>5.94</u>	<u>2</u>	<u>11.88</u>	<u>1.5</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>
Amidships	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>—</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>0</u>
3/4 L from F.P.	<u>11.88</u>	<u>2</u>	<u>23.76</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>
1/4 L "	<u>48.06</u>	<u>4</u>	<u>192.24</u>	<u>21</u>	<u>18.00</u>	<u>18.00</u>	<u>4</u>	<u>72.00</u>	<u>72.00</u>
F.P.	<u>108.00</u>	<u>1</u>	<u>108.00</u>	<u>71.5</u>	<u>72.00</u>	<u>72.00</u>	<u>1</u>	<u>72.00</u>	<u>72.00</u>
Total			<u>486.00</u>					<u>199.70</u>	

Mean actual sheer aft = Deficient
Mean standard sheer aftMean actual sheer forward = Deficient
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = Tanker
" " aft of " = ✓Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{286.30}{18} \times (.75 - .1505) = + 9.53"$ If limited on account of midship superstructure. ✓If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 35.07
Summer freeboard = 8.08
Moulded draught (d) = 26.99

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $\frac{26.99}{4} = 6.75 = 6 \frac{3}{4}$ Addition for Winter North Atlantic Freeboard (if required) = $4.4 = 4 \frac{1}{2} = 114 \frac{1}{2}$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 16060$

Tons per inch immersion at summer load water line

 $T = 53.77$ Deduction = $\frac{\Delta}{40 T}$ inches $= \frac{16060}{40 \times 53.77} = 7.47$ $= 7 \frac{1}{2}$ $= 190 \frac{1}{2}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.804 + .68}{1.36} = \frac{1.484}{1.36}$

	+	-
Depth Correction	<u>17.22</u>	<u>✓</u>
Deduction for superstructures	<u>✓</u>	<u>8.86</u>
Sheer correction	<u>9.53</u>	<u>✓</u>
Round of Beam correction	<u>✓</u>	<u>.10</u>
Correction for Thickness of Deck amidships	<u>✓</u>	<u>✓</u>
Other corrections, scantlings, etc.	<u>✓</u>	<u>✓</u>

26.75 8.96 + 17.79Summer Freeboard = 96.90

SUMMER FREEBOARD amidships from Centre of

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line " "

Tropical Line " "

Winter Line below " "

Winter North Atlantic Line " "

Disc to top of Deck Line, ~~Wood~~, Steel, Deck:— $14 \frac{1}{4} = 361 \frac{1}{4}$ Tropical Fresh Water Freeboard ... $7 \frac{1}{2} = 190 \frac{1}{2}$ Fresh Water " ... $6 \frac{3}{4} = 171 \frac{3}{4}$ Tropical " ... $6 \frac{3}{4} = 171 \frac{3}{4}$ Winter " ... $11 \frac{1}{4} = 285 \frac{1}{4}$ Winter North Atlantic " ... $8' - 1" = 2464 \frac{1}{2}$ $6' - 10 \frac{3}{4} = 2103 \frac{1}{2}$ $7' - 5 \frac{1}{2} = 2274 \frac{1}{2}$ $7' - 6 \frac{1}{4} = 2293 \frac{1}{2}$ $8' - 7 \frac{3}{4} = 2635 \frac{1}{2}$ $9' - 0 \frac{1}{4} = 2749 \frac{1}{2}$

See Rpt. C.11, dated 1909 Norwegian
8/3/39 Gods assigned

004411-004417-0034 1/2

Hervjorn.

3 Studded manholes are fitted with 3/4 covers on deck. p/s in way of forward side tanks & forward cofferdam

2 Studded manholes similar to above fitted p/s at after cofferdam & Cross Tanker.

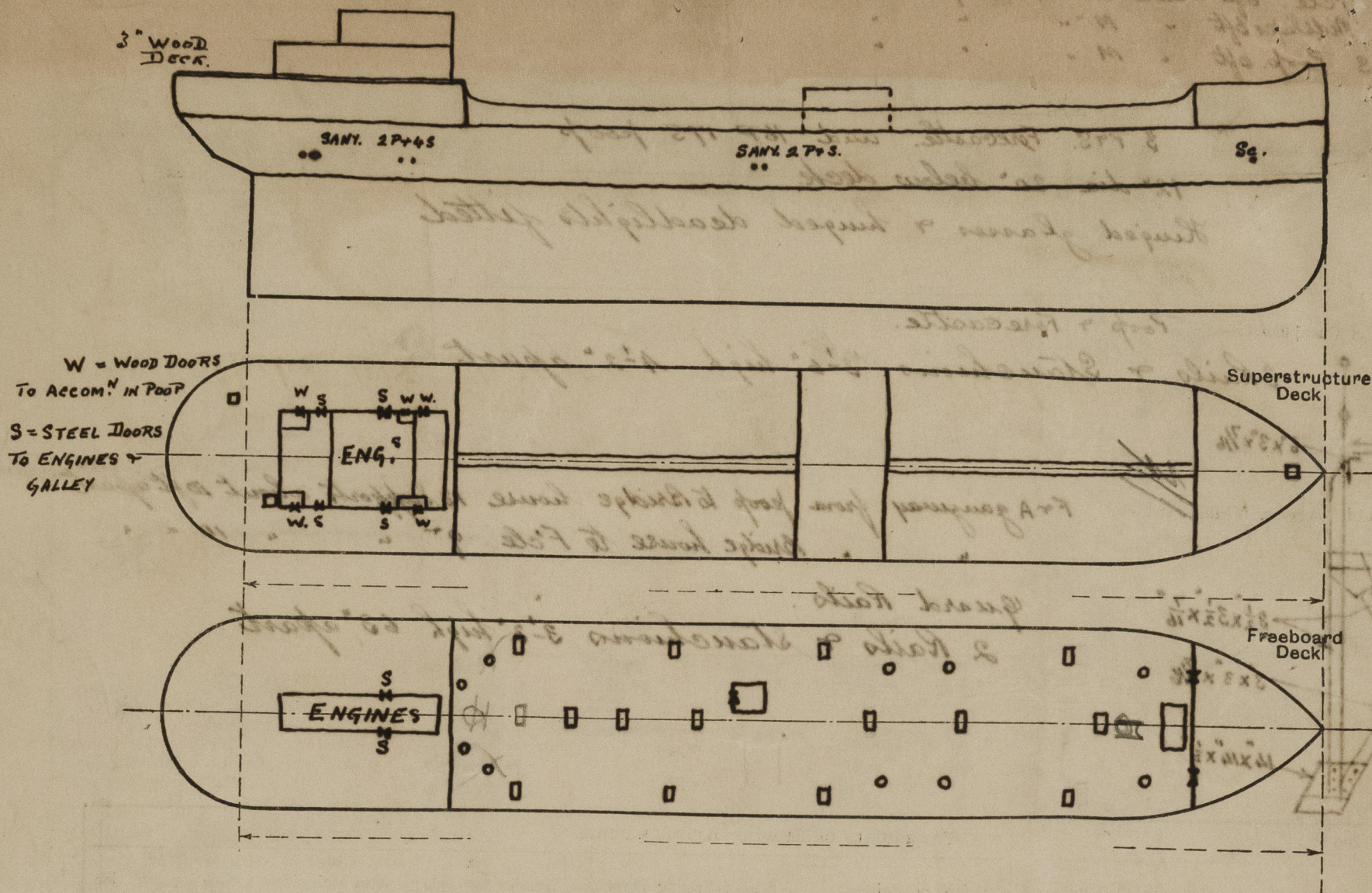
none

Particulars of Gangway Cargo and Coaling Ports :—

None

[illegible]

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship, are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

doek for condition

The vessel has been surveyed in dry

Builder's name and yard number:

A.B. Gotaverken. Gøteborg

Names of sister ships

Owners

Skibs A/S. Herbjörn

S. Herløfsen & Co A/S.

Fee £

16 : 3 : 0

Received by me



© 2020

Lloyd's Register
Foundation