

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~
having Prop, Bridge and Forecastle

(Type of Superstructures.)

Ship's Name <u>KOLLGRIM.</u>	Nationality and Port of Registry <u>Norwegian</u> <u>Oslo</u>	Official Number	Gross Tonnage <u>8262.95</u>	Date of Build <u>1936</u> <u>June</u>
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Port of Survey Göteborg
Date of Survey 25th May 1935.
Name of Surveyor G. Jernegren.
Particulars of Classification \$100 A.1.
Carrying Petroleum in Bulk,
Contemplated.

Moulded Dimensions: Length 465'-0" Breadth 60'-9" Depth 34'-0"
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18415 tons
Coefficient of fineness for use with Tables 790

Depth for Freeboard (D) Moulded depth <u>34'-0"</u> Stringer plate <u>0.07</u> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u> Depth for Freeboard (D) = <u>34'-0.07"</u>	Depth correction (a) Where D is greater than Table depth $(D - \text{Table depth}) R = (34.07 - 31.00) 3.00$ $= + 9.21"$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ <u>✓</u> If restricted by superstructures <u>✓</u>	Round of Beam correction Moulded Breadth (B) <u>60'-75"</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{720}{50} = 14.58"$ Ship's Round of Beam = <u>386 mm. = 15.20"</u> Difference <u>Excess .62"</u> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.62}{4} \times .6445 = -.10"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <u>Equid.</u> ...	<u>94.73</u>	<u>94.73</u>	<u>7'-6"</u>	<u>✓</u>	<u>94.73</u>	Standard Height of Superstructure <u>7.50'</u>
" overhang ...						" " R.Q.D. <u>✓</u>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42.00"</u>
" overhang ...						Percentage covered $\frac{S}{L} = 35.55\%$
Bridge enclosed <u>Equid.</u> ...	<u>32.65</u>	<u>32.65</u>	<u>7'-6"</u>	<u>✓</u>	<u>32.65</u>	" " $\frac{S_1}{L} = 35.55\%$
" overhang aft ...						" " $\frac{E}{L} = 35.55\%$
" overhang forward ...						Percentage from Table, <u>Line A. Tanker.</u> <u>26.55%</u>
F'cle enclosed ...	<u>37.92</u>	<u>37.92</u>	<u>7'-6"</u>	<u>✓</u>	<u>37.92</u>	(corrected for absence of fore-castle (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of fore-castle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = <u>42.00</u> x <u>.2655</u> = <u>- 11.15"</u>
" forward ...						
Total ...	<u>165.30</u>	<u>165.30</u>			<u>165.30</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>56.50</u>	1		<u>56.50</u>	<u>106.40.00</u>	<u>40.00</u>	1		<u>40.00</u>	Mean actual sheer aft = <u>Deficient</u>
$\frac{1}{8}L$ from A.P. ...	<u>25.14</u>	4		<u>100.56</u>	<u>371.14.60</u>	<u>14.60</u>	4		<u>58.40</u>	Mean actual sheer forward = <u>Deficient</u>
$\frac{3}{8}L$ " ...	<u>6.25</u>	2		<u>12.43</u>	<u>64.25.20</u>	<u>2.52</u>	2		<u>5.04</u>	Length of enclosed superstructure forward of amidships = <u>Tanker.</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>0</u>	<u>✓</u>	4		<u>✓</u>	" " aft of " = <u>✓</u>
$\frac{3}{8}L$ from F.P. ...	<u>12.43</u>	2		<u>24.86</u>	<u>193.76.00</u>	<u>7.60</u>	2		<u>15.20</u>	
$\frac{1}{8}L$ " ...	<u>50.28</u>	4		<u>201.12</u>	<u>883.34.76</u>	<u>34.76</u>	4		<u>139.04</u>	
F.P. ...	<u>113.00</u>	1		<u>113.00</u>	<u>2032.80.00</u>	<u>80.00</u>	1		<u>80.00</u>	
Total ...				<u>508.47</u>					<u>337.68</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{170.79}{18} \left(.75 - \frac{.1777}{.75} \right) = + 5.43"$

If limited on account of midship superstructure. ✓If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 34'-0.07"
 Summer freeboard = 7'-40"
 Moulded draught (d) = 26'-67"

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $\frac{26.67}{4} = 6\frac{3}{4}$
 $= 17\frac{1}{4}"$

Addition for Winter North Atlantic Freeboard (if required) = $6.67 + 4.65 = 11.32 = 11\frac{1}{4}"$
 $= 286\frac{1}{4}"$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 17129$

Tons per inch immersion at summer load water line

$T = 57.94$

Deduction = $\frac{\Delta}{40T}$ inches

$= \frac{17129}{40 \times 57.94} = 7.39 = 7\frac{1}{2}"$

$= 190\frac{1}{4}"$

See end of report.

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.79 + .68}{1.36} = \frac{1.47}{1.36}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Summer Freeboard = 88'-73"SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ...

Tropical Line " " ...

Winter Line below " " ...

Winter North Atlantic Line " " ...

$14\frac{1}{4} = 36\frac{1}{4}"$

$7\frac{1}{2} = 190"$

$6\frac{3}{4} = 171"$

$6\frac{3}{4} = 171"$

$11\frac{1}{4} = 286"$

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

$7'-4\frac{3}{4}" = 2254\frac{1}{4}"$

$6'-2\frac{1}{2}" = 1893"$

$6'-9\frac{1}{4}" = 2064"$

$6'-10" = 2083"$

$7'-11\frac{1}{2}" = 2425"$

$8'-4" = 2540"$

Pickardie Kolgrime

Particulars of fiddley, funnel and ventilator coamings:— Fiddley funnel and ventilators on top of engine casing 15' above poop deck, efficiently constructed and supported. Fiddley fitted with hinged steel covers.

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars of Air Pipes in exposed positions on freeboard, ~~raised quarter,~~ or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails:— *Open rails on foreboard and forecandle*

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	<i>Open rails all fore and aft.</i>					
Forward Well						

State position of each freeing port } After Well :—
 (F. and A. position and height above deck edge) } Forward Well :—
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
 Additional area where sheer is less than standard.

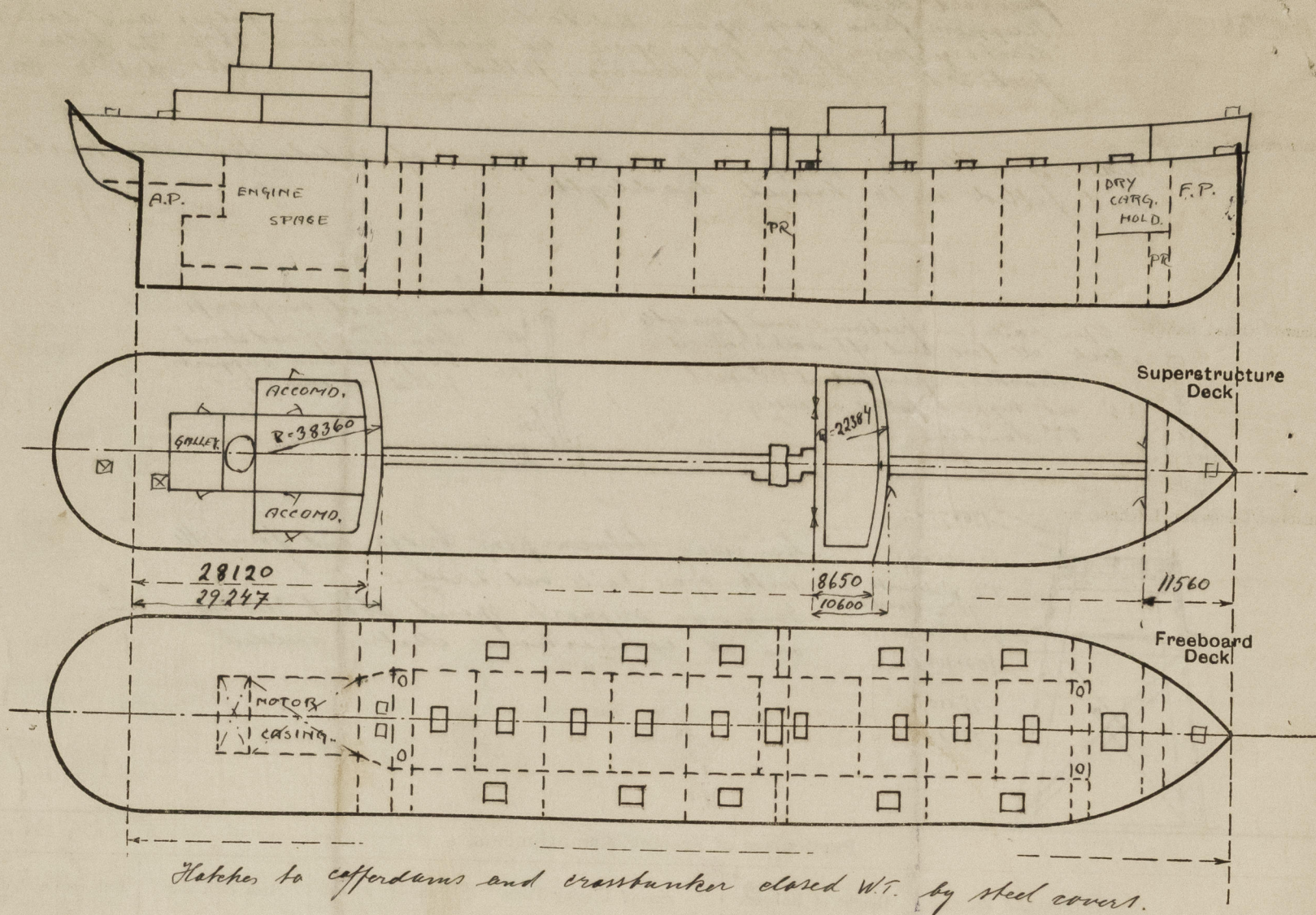
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating <i>mm.</i>	Stiffeners	Spacing <i>mm.</i>	End Attachments of Stiffeners	Size of Openings <i>mm.</i>	Height of Sills	Height of Casings
Poop Bulkhead	✓	11	8 bulkheads and 250 × 90 × 12 L	780	Lugs top and bottom	None	✓	7'-6"
Raised Quarter Deck Bulkhead ...	✓	10	150 × 75 × 8 L	760	None	5'0" × 4'-0"	24"	7'-6"
Bridge, After Bulkhead	✓	11	230 × 90 × 10 L	780	Lugs top and bottom	4'0" × 3'-0"	24"	✓
Bridge, Forward Bulkhead	✓	7	120 × 75 × 9 L	800	None	5'-0" × 2'-10" 5'-0" × 2'-4"	19"	7'-8"
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super- structure Decks	✓	10.0	130 × 75 × 9 L	800	Continuous top and bottom	3'-0" × 2'-0"	18"	7'-6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...	✓	9.0	90 × 10 (welded)	610	None	5'-0" × 2'-4"	18"	6'-6"

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	No opening.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Portable steel plates (7.5 ^{mm}) secured by hook bolts spaced 310 ^{mm} apart and not passing through the bulkhead.
Bridge, Forward Bulkhead	Hinged steel door (12 ^{mm}) secured by 6 wing bolts manipulated from outside and closed W.T.
Forecastle Bulkhead	Ordinary hinged steel doors manipulated from both sides. and door to forward pump room closed W.T.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	Ordinary hinged steel door manipulated from both sides.
Machinery-Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	Hinged strong steel door closed W.T. and manipulated from both sides.
Access to lifeboats	

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:—

Displacement in salt water at 75% 85% and 95% of moulded depth and tons per inch at same draught.

Displacement

Tons per inch

16315

57.6

18710

58.6

21120

59.6.

Roof Side
2/3 x 3.69

92.26
2.47
94.73 eqns.

Bridge Side
2/3 x 6.398

28.38
4.27
32.65 eqns.

Builder's name and yard number A/B Erikbergs Mek. Verkstad N° 262

Names of sister ships M/S ALEXANDRA HÖEGH. (Erikberg M/s N° 258)

Owners Odd Bergs Tankrederi A/S, Oslo

Fee Nr. 420. approx.

Received by me



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