

COPY WRITTEN
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Index No. 22900
(For London Office only.)

16 MAY 1934

Computation of Freeboard for Tanker
having RAISED QUARTER DECK; TRUNK; FORECASTLE.
(Type of Superstructures.) Small letters T.F.J.B.
Ship's Name "SKEIJUNGUR" Nationality and Port of Official Number ICELANDIC. SKERJAFJORD. Gross Tonnage 255.43 MEASURED. Date of Build 1928
Moulded Dimensions: Length 37.236 M. Breadth 6.782 Depth 2.606
Moulded displacement at moulded draught = 85 per cent. of moulded depth 414 M³
Coefficient of fineness for use with Tables 1.46
Port of Survey AMSTERDAM.
Date of Survey 14-5-34.
Name of Surveyor C. Hodder.
Particulars of Classification *100 A1
CARR. PETROLEUM IN BULK
I.S. NO 1-32.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>2.606</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>8.33 (2.614 - 2.482) x 940 = + 10 m.</u>	Moulded Breadth (B) <u>6.782</u>
Stringer plate <u>8</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>13.2</u>	Standard Round of Beam = $\frac{B \times \square}{50}$ = <u>136</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <u>✓</u>	Ship's Round of Beam = <u>135</u>
Depth for Freeboard (D) = <u>2.614</u>		Difference <u>1</u>
		Restricted to <u>✓</u>
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right)$ = $\frac{1}{4} \times .2998 = .07495$

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 ...	<u>13.780</u>	<u>13.780</u>	<u>610</u>	<u>x $\frac{610}{956}$</u>	<u>8.793</u>
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	<u>6.876</u>	<u>6.876</u>	<u>2.196</u>	<u>✓</u>	<u>6.876</u>
" overhang ...					
Trunk aft ...		<u>5.416</u>	<u>100</u>	<u>x $\frac{709}{1.830}$</u>	<u>2.072</u>
" forward <u>11.130</u> ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>20.656</u>	<u>26.072</u>			<u>17.741</u>

Standard Height of Superstructure	<u>1.830</u>
" R.Q.D.	<u>956</u>
Deduction for complete superstructure	<u>463</u>
Percentage covered $\frac{S}{L} =$	<u>55.47</u>
" $\frac{S_1}{L} =$	<u>70.024</u>
" $\frac{E}{L} =$	<u>47.64</u>
Percentage from Table, <u>Line A</u>	<u>38.64</u>
(corrected for absence of forecastle (if required))	<u>29.99</u>
Percentage from Table, Line B. <u>✓</u>	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = <u>463 x $\frac{38.64}{29.99} = -179$</u>	<u>139</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>564</u>	1		<u>564</u>	<u>543</u>	<u>543</u>	1		<u>543</u>
$\frac{1}{4}$ L from A.P. ...	<u>251</u>	4		<u>1004</u>	<u>191</u>	<u>191</u>	4		<u>764</u>
$\frac{2}{4}$ L " ...	<u>63</u>	2		<u>126</u>	<u>29</u>	<u>29</u>	2		<u>58</u>
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	<u>125</u>	2		<u>250</u>	<u>76</u>	<u>76</u>	2		<u>152</u>
$\frac{1}{4}$ L " ...	<u>502</u>	4		<u>2008</u>	<u>438</u>	<u>438</u>	4		<u>1752</u>
F.P. ...	<u>1128</u>	1		<u>1128</u>	<u>1118</u>	<u>1118</u>	1		<u>1118</u>
Total ...				<u>5080</u>					<u>4387</u>

Mean actual sheer aft = Deficient
Mean standard sheer aft = Deficient
Mean actual sheer forward = Deficient
Mean standard sheer forward = Deficient
Length of enclosed superstructure forward of amidships = Sheers Deficient
 " aft of " = Sheers Deficient

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{693}{18} \left(.75 - \frac{2773}{4727} \right) = + 18 \text{ m.}$

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.	Deduction for Fresh Water.	TABULAR FREEBOARD	<u>310</u>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.746 + .68}{1.36} = \frac{1.426}{1.36}$	<u>325</u>
Depth to Freeboard Deck = <u>2.614</u>	$\Delta = \frac{460.58 \text{ m}^3}{\text{C.N. } 460.04}$	Depth Correction ...	<u>10</u>
Summer freeboard = <u>214.74</u>	per immersion at summer load water line	Deduction for superstructures ...	<u>-139</u>
Moulded draught (d) = <u>2.440</u>	T = <u>2.10</u>	Sheer correction ...	<u>18</u>
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches = <u>56.55</u>	Round of Beam correction ...	<u>-</u>
Winter freeboard = $\frac{d}{48}$ inches = <u>51.50</u>	$D = 7'9'' : \Delta = 448.45 \text{ M}^3$ $8'3'' : 480.66 \text{ M}^3$	Correction for Thickness of Deck amidships ...	<u>-</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>+102.101</u>		Other corrections, scantlings, etc. ...	<u>-139</u>
		Summer Freeboard = <u>174.214</u>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, , Steel, Deck: 214.74

Tropical Fresh Water Line above Centre of Disc	<u>105.107</u>	Tropical Fresh Water Freeboard	<u>10.9</u>
Fresh Water Line	<u>55.56</u>	Fresh Water	<u>15.9</u>
Tropical Line	<u>50.51</u>	Tropical	<u>16.4</u>
Winter Line below	<u>50.51</u>	Winter	<u>26.4</u>
Winter North Atlantic Line	<u>101.102</u>	Winter North Atlantic	<u>31.5</u>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		N° I TO CARGO SP.	N° II-IV TO TANKS.	A. TO A.P.T.	B. TO BUNK.	C. TO STORE R.			
Dimensions of Hatchway		1400x1400	1250x1250	600x600	600x600	450x600			
COAMINGS	Height above Deck	7 1/2"	7 1/2"	450	870	FLUSH			
	Thickness	40"	40"	8	8	✓			
	Sides	✓	✓	✓	✓	✓			
	Stiffeners	✓	✓	✓	✓	✓			
HATCH BEAMS	Number	✓	✓	✓	✓	✓			
	Spacing	✓	✓	✓	✓	✓			
	Scantling and Sketch	✓	✓	✓	✓	✓			
	Bearing Surface	✓	✓	✓	✓	✓			
FORE AND AFTERS	Number	✓	✓	✓	✓	✓			
	Spacing	✓	✓	✓	✓	✓			
	Unsuported Lengths	✓	✓	✓	✓	✓			
	Scantling and Sketch	✓	✓	✓	✓	✓			
HATCH COVERS	Material	STRONG STEEL	STRONG STEEL	STRONG STEEL	STRONG STEEL	PINE			
	Thickness	1/2"	1/2"	1/2"	1/2"	2 1/2"			
	How fitted	OILTIGHT COVERS.	OILTIGHT COVERS.	OILTIGHT COVERS.	OILTIGHT COVERS.	HINGED			
	Bearing Surface	✓	✓	✓	✓	✓			
Spacing of Cleats		✓	✓	✓	✓	✓			
Number of Tarpaulins		✓	✓	✓	✓	✓			

Particulars of fiddle, funnel and ventilator coamings:— FIDDLE, FUNNEL & VENTILATOR COAMINGS IN EFFICIENT CONDITION. ENGINE ROOM SKYLIGHT OF STEEL, STRONGLY CONSTRUCTED; STEEL HINGED FLAPS.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— ON FORECASTLE DECK:
1 GOOSENECK VENT. 180 x 90 1/4" Ø TO FLE SPACE. (EFFICIENT MEANS OF CLOSING PROVIDED)
4 MUSHROOM VENTS 200 x 200 1/4" Ø (3 TO FLE SPACE; 1 TO STOREROOM)
1 Vent. to forward Cargo Hold. 36" x 8" efficiently constructed & hinged to upper deck (Canvas Cover provided)

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

ON R.Q.D.: A.P. TANK. 2" DISCHARGES INTO F.W. TANK ON DECKHOUSE.
IN WELL: BUNKER. 2"; 2100 1/4" ABOVE DECK. (2 OFF.)
COFFERDAM. 2"; 1480 " " (2 OFF.)
ON FLE: F.P. TANK. 3"; 740 " " (1 OFF.)

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes:—

FORECASTLE: 1 JAN. DISCHARGE PIPE FROM LAVATORY. STORMVALVE FITTED.
2 SCUPPERS FROM FLE SPACE; NO STORMVALVE; NO PLUG.
1 scupper from R.Q.D. abreast deckhouse

Particulars of Side Scuttles:—

FORECASTLE. 4 ON EACH SIDE. STRONG STEEL HINGED DEADLIGHTS FITTED.

Particulars of Guard Rails:—

ON FORECASTLE. 2 RODS.
STANCHIONS 1100 1/4" APART; BOLTED TO RIVETED T-BARS.
HEIGHT OF RAILING 1040 1/4".
STEEL BULWARKS IN WELL AND ON R.Q.D. EFFICIENTLY CONSTRUCTED AND SUPPORTED.

Particulars of Gangways, Lifelines, etc.:—

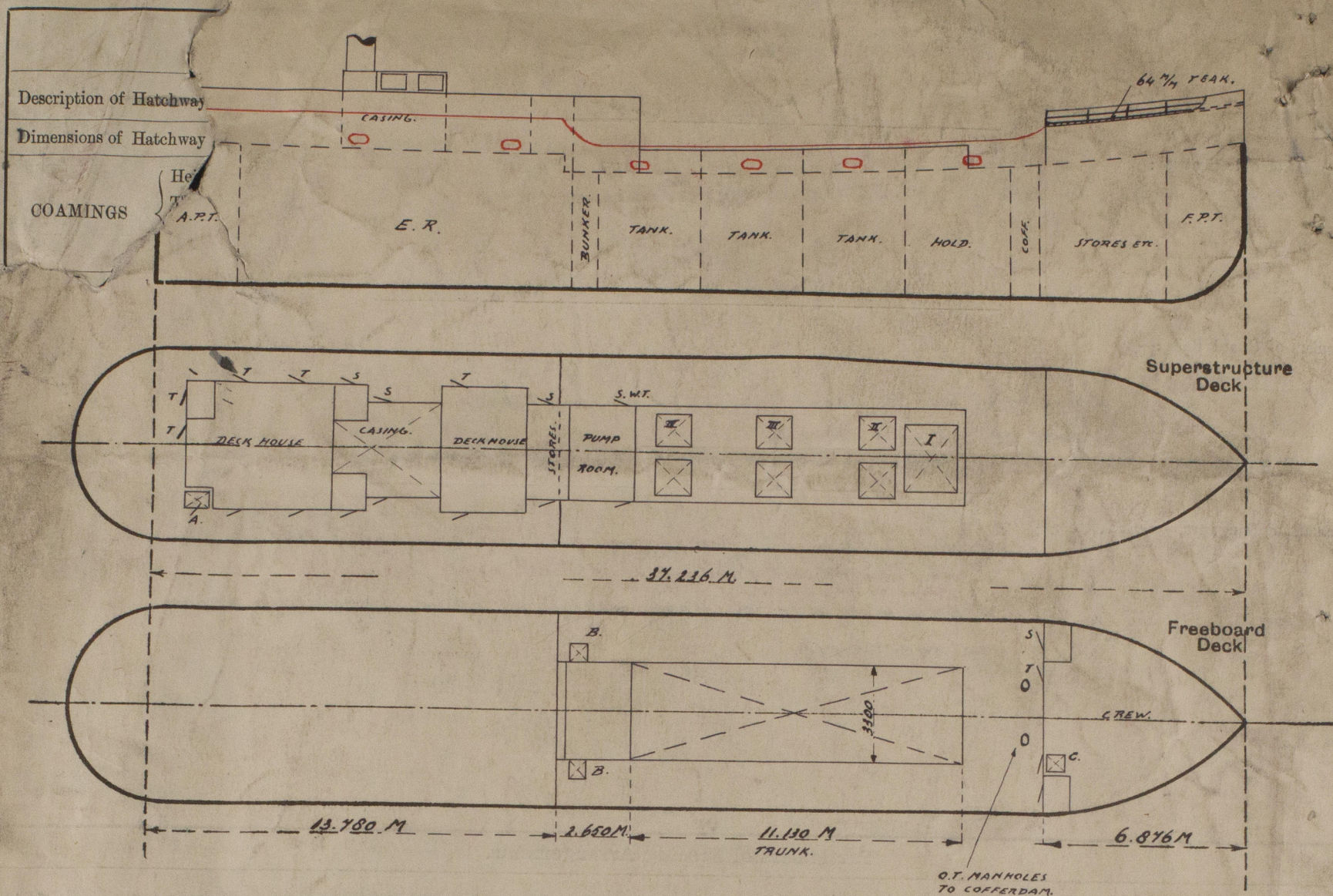
NONE FITTED. Provision made for rigging lifelines which are available in any part of the ship, which might have to be used by the crew in the regular working of the ship.
A GANGWAY WILL BE MADE EXTENDING FROM TOP OF PUMPROOM TO FORECASTLE.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
R.Q. DECK	13.480 M.	.930 M.	800 x 450	2	.634 M ²	1025 M ²
Forward Well	16.580 M.	.915 M.	225" x 0.45" 800 x 450	3	1.920 M ² 1.268 M ²	
State position of each freeing port ... After Well:— 120 1/4" ABOVE DECK. (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:— 2 BARS FITTED. Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead	75	75	4 75x65x4	760	✓	✓	✓	✓
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	4	6	4 90x65x4	760	FREE	1490 x 590	500	✓
Trunk, Aft								
Trunk, Forward	75	75	4 115x65x4	530	BRACKETS TOP FREE BOTTOM.	✓	✓	✓
Exposed Machinery Casings on Raised Quarter Decks	75	65	4 75x65x4	600	FREE	1495 x 630	330	2130
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	STRONG TEAK DOORS ON HINGES, OPERATED FROM BOTH SIDES.
Exposed Machinery Casings on Raised Quarter Decks	STRONG STEEL DOORS ON HINGES, OPERATED FROM BOTH SIDES. H.T. Doors fitted to Engine casing giving access to motor room.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

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



T = STRONG TEAK HINGED DOORS OPERATED FROM BOTH SIDES.
S = " STEEL " " OPERATED FROM BOTH SIDES.
S.W.T = " " W.T. " " " " " "

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

THIS VESSEL HAS BEEN EXAMINED ON BOELE'S SLIPWAY WHERE
THE SHIP IS BEING LENGTHENED BY BUILDING AN ADDITIONAL
CARGO TANK AMIDSHIPS.

SEE SECR. LETTERS F. 5/4 & 7/5-34
M. 5/4-34.

1.13 $\times \frac{3.30}{6.782} = 5.416$

Builder's name and yard number MESSRS. SCHEEPSBOUWWERF GEBR. POT. N° 800

Names of sister ships

Owners H/F SHELLA' ISLANDI.

Fee \$ 40. - : Will be Received by me (V) J. J. J. J. J.