

Rpt. C.11.

Index. No. **29513**  
(For London Office only.)

# Cloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. **53044**

Computation of Freeboard for <del>Steamer</del> <i>Sailing Ship</i> , Tanker					Port of Survey <i>Bowling</i>
having <i>a Forecastle &amp; Trunk</i>					Date of Survey <i>1st November 1932</i>
(Type of Superstructures.)					Name of Surveyor <i>H. C. Owen &amp; W. D. Owen</i>
Ship's Name <b>INVERTEST</b>	Nationality and Port of Registry <i>British London</i>	Official Number <i>145101</i>	Gross Tonnage <i>259</i>	Date of Build <i>1920-11</i>	Particulars of Classification <i>+ 100 A.1.</i>
Moulded Dimensions: Length <i>120.0</i> Breadth <i>23.0</i> Depth <i>10.0</i>					<i>Carrying Oil fuel in Back F.P.</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>489</i> tons					<i>SS No. 229 above 150°F.</i>
Coefficient of fineness for use with Tables <i>.731</i>					
Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ... .. <i>10.0</i>		(a) Where D is greater than Table depth (D - Table depth) R = <i>(10.04 - 8.00) .923 = + 1.88</i>		Moulded Breadth (B) <i>23.0</i>	
Stringer plate ... .. <i>.50</i>		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>5.52</i>	
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam = <i>6"</i>	
Depth for Freeboard (D) = <i>10.04</i>				Difference <i>.48</i>	
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times .5668 = (+) .07$	

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Deep enclosed ... ..						Standard Height of Superstructure <i>6.0</i>
" overhang ... ..						" " R.Q.D. <i>"</i>
R.Q.D. enclosed ... ..						Deduction for complete superstructure <i>18.0</i>
" overhang ... ..						Percentage covered $\frac{S}{L} =$ <i>18.44</i>
Bridge enclosed ... ..						" " $\frac{S_1}{L} =$ <i>43.32</i>
" overhang aft ... ..						" " $\frac{E}{L} =$ <i>26.59</i>
" overhang forward ... ..						Percentage from Table, Line A. <i>TANKER</i>
F'cle enclosed <i>Equival.</i> ... ..	<i>22.16</i>	<i>22.16</i>	<i>4.25</i>	<i>4.16/6</i>	<i>15.36</i>	(corrected for absence of forecastle (if required)) <i>18.61</i>
" overhang ... ..						Percentage from Table, Line B.
Trunk aft ... ..	<i>49.00</i>	<i>29.82</i>	<i>4.08</i>	<i>3.33/6</i>	<i>16.55</i>	(corrected for absence of forecastle (if required))
" forward ... ..			<i>3.33</i>	<i>SIDE</i>		Interpolation for bridge less than 2L (if required)
Tonnage opening aft ... ..						Deduction = <i>.1861 x 18 = 3.35</i>
" forward ... ..						
Total ... ..	<i>22.16</i>	<i>51.98</i>			<i>31.91</i>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft = <i>.563</i>
A.P. ... ..	<i>22.00</i>	1		<i>22.00</i>	<i>19.5</i>	<i>19.50</i>	1		<i>19.50</i>	Mean standard sheer aft
$\frac{1}{2}$ L from A.P. ... ..	<i>9.79</i>	4		<i>39.16</i>	<i>4.5</i>	<i>5.40</i>	4		<i>21.60</i>	Mean actual sheer forward = <i>EXAM.</i>
$\frac{3}{8}$ L " ... ..	<i>2.42</i>	2		<i>4.84</i>	<i>0</i>	<i>-0.90</i>	2		<i>-1.80</i>	Mean standard sheer forward
Amidships ... ..		4			<i>1</i>		4			Length of enclosed superstructure forward of amidships = <i>4 Tanks.</i>
$\frac{3}{8}$ L from F.P. ... ..	<i>4.84</i>	2		<i>9.68</i>	<i>8</i>	<i>8.90</i>	2		<i>11.72</i>	" " aft of " =
$\frac{1}{2}$ L " ... ..	<i>19.58</i>	4		<i>78.32</i>	<i>24</i>	<i>25.40</i>	4		<i>84.20</i>	
F.P. ... ..	<i>44.00</i>	1		<i>44.00</i>	<i>48</i>	<i>48.00</i>	1		<i>48.01</i>	
Total ... ..				<i>198.00</i>					<i>180.23</i>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{17.77}{18} (.75 - .0923) = (+) .65$										If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.
If limited on account of midship superstructure.										

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<i>12.00</i>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.68 + .731}{1.36} = \frac{1.411}{1.36}$	<i>12.45</i>
Depth to Freeboard Deck = Ft.	$\Delta =$	Depth Correction ... ..	<i>1.88</i>
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures ... ..	<i>3.35</i>
Moulded draught (d) =	T =	Sheer correction ... ..	<i>.65</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40 T}$ inches =	Round of Beam correction ... ..	<i>.07</i>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ... ..	
		Other corrections, scantlings, etc. ... ..	
		<i>2.53</i> <i>3.42</i> <i>(-)</i> <i>.89</i>	
		Summer Freeboard = <i>11.56</i>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood*, Steel, Deck:— *0-11 1/2"*

Tropical Fresh Water Line above Centre of Disc ... ..	Tropical Fresh Water Freeboard ... ..
Fresh Water Line " " ... ..	Fresh Water " " ... ..
Tropical Line " " ... ..	Tropical " " ... ..
Winter Line below " " ... ..	Winter " " ... ..
Winter North Atlantic Line " " ... ..	Winter North Atlantic " " ... ..



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		OIL HATCHES		MANHOLE TO COFFERDAM					
Dimensions of Hatchway		2'6" x 2'6"		2'0" x 1'6"					
COAMINGS	Height above Deck	12"		5"					
	Thickness	3/8"		5"					
	Sides	✓		angle					
	Ends	✓		crs.					
HATCH BEAMS	Stiffeners	✓		✓					
	Brackets, Stays	✓		✓					
	Number								
	Spacing								
FORE AND AFTERS	Scantling and Sketch								
	Bearing Surface								
	Number								
	Spacing								
HATCH COVERS	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface								
	Material	PLATE		HINGED					
HATCH COVERS	Thickness	COVERS W.T.		STEEL					
	How fitted	FASTENED		W.T.					
	Bearing Surface	WITH		COVER					
	Spacing of Cleats	TURNBUCKLES		FASTENED					
Number of Tarpaulins	SPACED		WITH						
	16" APART		TURNBUCKLES						
*Are wood fore and afters steel shod at all bearing surfaces? none									
Are battens and wedges efficient and in good condition? none									
Are tarpaulins in good condition and in accordance with rule requirements? none									
Are lashings provided in accordance with rule requirements? none									

Particulars of fiddle, funnel and ventilator coamings:— Engine Room skylight on casing top made of steel strongly constructed. Fiddle openings on casing top protected by strong hinged plate covers. Funnel & Ventilator coamings in good condition.

Particulars of Flush Banker Scuttles:— Flush scuttle on fore-castle deck 24" dia. to fore peak storeroom, strongly constructed, screw joint, no chain fitted.

Particulars of Companionways:— Entrance to crew quarters through fore-castle bhd, with wood door 4'6" x 22 1/2" operated both sides. Entrance to pump room forward on top of trunk made of steel 3'4" x 2'8" x 3'9" high (above trunk). Hinged steel door 4'6" x 1'10" sill 2'9" above freeboard deck, operated both side, can also be closed with turnbuckles spaced 12" apart & operated one side. Entrance to Engine Room through companionway on casing top 6'0" x 2'3" x 6'0" high made of steel, hinged steel door 4'2" x 1'9", sill 18" operated both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— 1 Vent. on freeboard deck forward eng. 36" high x 12" dia. x 20" to pump Room 3 " " fore-castle " " 18" x 6" x 25" crew quarters Ventilator coamings constructed in accordance with the rules but have no means of closing openings. wood plugs and canvas covers provided for ventilator coamings

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— 1 air pipe on fore-castle deck to fore peak tank 2" dia x 4" high 1 " " freeboard " " 3" x 4'5" high 1 " " " " after end to after peak 2" x 4" Canvas covers provided for air pipes no snifting holes fitted no means of closing.

Particulars of Gangway Cargo and Coaling Ports:— NONE



Particulars of Scuppers and Sanitary Discharge Pipes:—

Sanitary discharge from crew quarters H.C. forward discharges 1'6" below freeboard deck fitted with storm valve at ships side. Scuppers from freeboard deck aft 1'0" below freeboard deck. no storm valve at ships side.

Particulars of Side Scuttles:—

Side scuttles fitted in crew quarters forward are fitted with hinged deadlights.

Particulars of Guard Rails:—

Guard rail on forecastle deck 3'0" high with 2 rods stanchions spaced 4'0" apart.

Particulars of Gangways, Lifelines, etc.:—

one lifeline in centre of trunk  
Top of trunk forms gangway.

S.W.R.

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 ...	95.0	4'-1"	2 @ 2'-6" x 1'-5"	8	16.26	19
Forward Well ...			6 @ 3'-2" x 6"			

State position of each freeing port FROM HOUSE FORWARD After Well:— } 12'-0", 32'-6", 34'-6", 43'-0", 48'-0", 53'-6", 59'-0", 46'-6"  
(E. and A. position and height above deck edge) } Forward Well:— } Forward & after ports fitted with balanced shutter & 1 rod, 6" above D.R.  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 6 @ 3'-2" x 6" open 4" above D.R.

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
Peep Bulkhead ...								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...								
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...	14" x 30"	.25"	4 x 3 x 35"	1'-10"	none	4'-6" x 1'-10"	12"	4'-3"
Trunk, Aft ...	SIDES	TOP	7 x 3 x 40" BA. fore & aft on outside of trunk with 4 stays intermediate brackets	3'-6" apart	brackets at top	companionway to pump room	3'-4" at side 4'-1" at Cr	
Trunk, Forward ...								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	18" x 34"	.25"	2 1/2 x 2 1/2 x 30"	2'-4"	brackets at top	4'-6" x 1'-10"	18"	6'-6"
Exposed Machinery Casings on Superstructure Decks ...								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...								
Deckhouses on Flush Deck Ships ...								

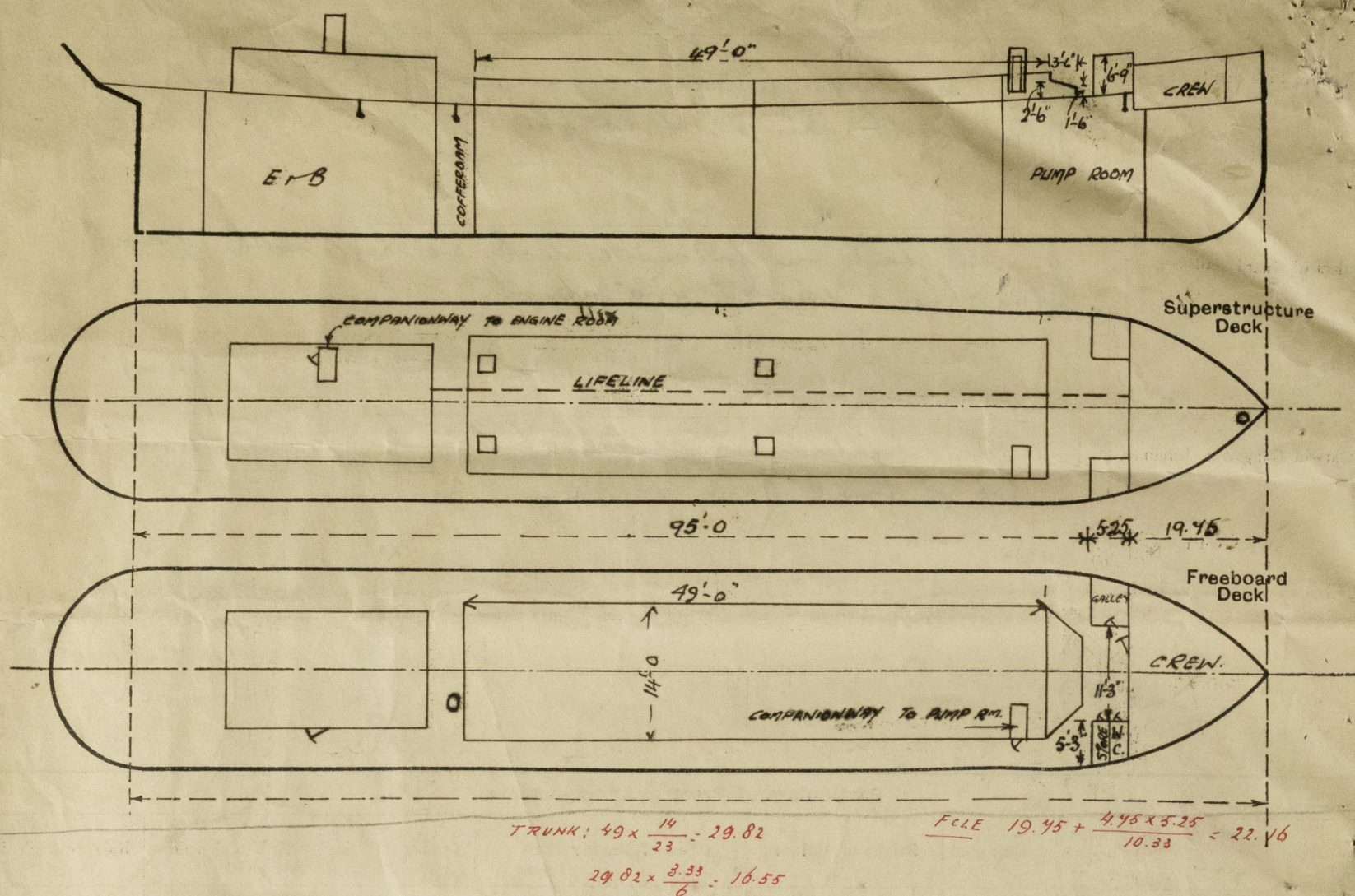
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Peep Bulkhead ...	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	
Bridge, Forward Bulkhead ...	
Forecastle Bulkhead ...	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Hinged wood door (see companionway to crew)
Exposed Machinery Casings on Superstructure Decks ...	Hinged steel door operated both sides, can also be closed permanently with top bolts spaced 6" apart when companionway on casing top is being used.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	
Deckhouses on Flush Deck Ships ...	

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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:—

This vessel is engaged in coasting oil Trade  
 no part of S.L. No 3 now due has been held.

The survey of this vessel was held while on  
 the slipway.

Enclosed plans of Displacement Scale & General  
 arrgt. please return to this office after perusal

Builder's name and yard number *H. Scarr Ltd. Hesse* Yard No *283*

Names of sister ships

Owners *British Mexican Petroleum Co. Ltd. (F. J. Wolfe Mgr.)*

Fee £ *3* : *8* : *0*

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