

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

JUN 12 1939

Computation of Freeboard for MOTOR Tanker
having Prop., bridge and fore-castle

Port of Survey Hamburg

Date of Survey 25th-30th May 1939

Name of Surveyor H. Goring

Ship's Name "GALLIA" Nationality and Port of Registry Norwegian Oslo Official Number - Gross Tonnage ~10000 Date of Build 1939

Moulded Dimensions: Length 150.87m. Breadth 20.42m. Depth 10.41m.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21040 tons
Coefficient of fineness for use with Tables 21062 *ex loading*

Particulars of Classification +100 A1
"Carrying Petroleum in bulk"
uncomplicated.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... 10.41m	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	20.42m.
Stringer plate	... 21.5m/m... 0.0215m	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	=
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	= 0.41m.
Depth for Freeboard (D) =				Difference	
				Restricted to	
				Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$	=

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) m.	Equivalent Enclosed Length (S ₁)	Height m.	Height Correction	Effective Length (E)	
Poop enclosed ...	37.53		2.44			Standard Height of Superstructure
" overhang ...	see sketch					" " R.Q.D.
R.Q.D. enclosed ...	-					Deduction for complete superstructure
" overhang ...	-					Percentage covered $\frac{S}{L} =$
Bridge enclosed ...	11.68		2.21			" " $\frac{S_1}{L} =$
" overhang aft ...	0.73					" " $\frac{E}{L} =$
" overhang forward ...	0.20					Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed ...	17.11		2.29			Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ...	none					Interpolation for bridge less than 2L (if required)
Trunk aft ...						Deduction =
" forward ...						
Tonnage opening aft ...						
" " forward ...						
Total ...						

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate m.	Effective Ordinate	S M	Product	
A.P. ...		1		1.468		1		Mean actual sheer aft =
$\frac{1}{6}$ L from A.P. ...		4		0.683		4		Mean actual sheer forward =
$\frac{2}{6}$ L " ...		2		0.168		2		Mean standard sheer aft =
Amidships ...		4		0.000		4		Mean standard sheer forward =
$\frac{2}{6}$ L from F.P. ...		2		0.340		2		Length of enclosed superstructure forward of amidships =
$\frac{1}{6}$ L " ...		4		1.328		4		" " aft of " =
F.P. ...		1		3.020		1		
Total ...								

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

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 = Ft.

Summer freeboard =

Moulded draught (d) =

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta =$$

Tons per inch immersion at summer load water line

$$T =$$

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

$$=$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard =

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	"	"	

Tropical Fresh Water Freeboard	...
Fresh Water	"
Tropical	"
Winter	"
Winter North Atlantic	"

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.											
ON FREEBOARD DECK						ON FOREC. DECK ON POOP DECK					
Description of Hatchway	1 to fore	1 to stern	30 to 40	5 to 10	2 to 3	1 to fore	1 to stern	30 to 40	5 to 10	2 to 3	1 to fore
Dimensions of Hatchway	800	1900	1068	400	480	800	1900	1068	400	480	800
COAMINGS	Height above Deck	250	250	815	250	800	250	800	500	600	250
	Thickness	10	10	11	10	11	10	11	10	10	10
	Sides	10	10	11	10	11	10	11	10	10	10
	Brackets, Stays	-	-	-	-	-	-	-	-	-	-
HATCH BEAMS	Number	-	-	-	-	-	-	-	-	-	-
	Spacing	-	-	-	-	-	-	-	-	-	-
	Scantling and Sketch	-	-	-	-	-	-	-	-	-	-
	Bearing Surface	-	-	-	-	-	-	-	-	-	-
FORE AND AFTERS	Number	-	-	-	-	-	-	-	-	-	-
	Spacing	-	-	-	-	-	-	-	-	-	-
	Unsupported Lengths	-	-	-	-	-	-	-	-	-	-
	Scantling* and Sketch	-	-	-	-	-	-	-	-	-	-
HATCH COVERS	Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
	Thickness	10	10	15	10	10	10	10	10	10	10
	How fitted	hinged	hinged	hinged	hinged	hinged	hinged	hinged	hinged	hinged	hinged
	Bearing Surface	packing	packing	packing	packing	packing	packing	packing	packing	packing	packing
Spacing of Cleats	-	-	-	-	-	-	-	-	-	-	-
Number of Tarpaulins	-	-	-	-	-	-	-	-	-	-	-

Particulars of fiddle, funnel and ventilator coamings:— Fiddle top 2800 mm. above poop deck.
 Openings in fiddle top closed by steel hinged covers.
 Funnel and ventilator coamings efficiently fastened to the fiddle top deck.

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:— The companionway on poop deck to crew accommodations are situated inside the deck house. The entrance doors of the poop deck house are of teak wood 50 mm thick, capable of being closed from both sides.
 Sill of doors 430 mm. above wood deck in poop deck.

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

On forecable deck two ventilators to form dry cargo hold 375 mm inside diam.; covering 915 mm high, 9 mm thick.
 " " " three " to stern 290 mm " " " 915 mm " 8.5 mm
 " " " two " to fore pump room 375 mm " " " 915 mm " 9 mm
 On freeboard deck two " to fore & after pump room 200 mm " " " 915 mm " 8 mm
 All ventilators are capable of being closed by steel caps and canvas covers.

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

Air pipe to fore peak tank 650 mm. above forecable deck.
 Air pipe to after peak tank 650 mm. above poop deck.
 Air pipes to double bottom tanks 650 mm. above poop deck.
 All air pipes are of substantial construction and fitted with hinged steel covers.

Particulars of Gangway Cargo and Coaling Ports:—

none.

Particulars of Scuppers and Sanitary Discharge Pipes:— 7 scuppers on each side above freeboard deck 120-110 mm.
 All sanitary discharge pipes are fitted with storm valves.

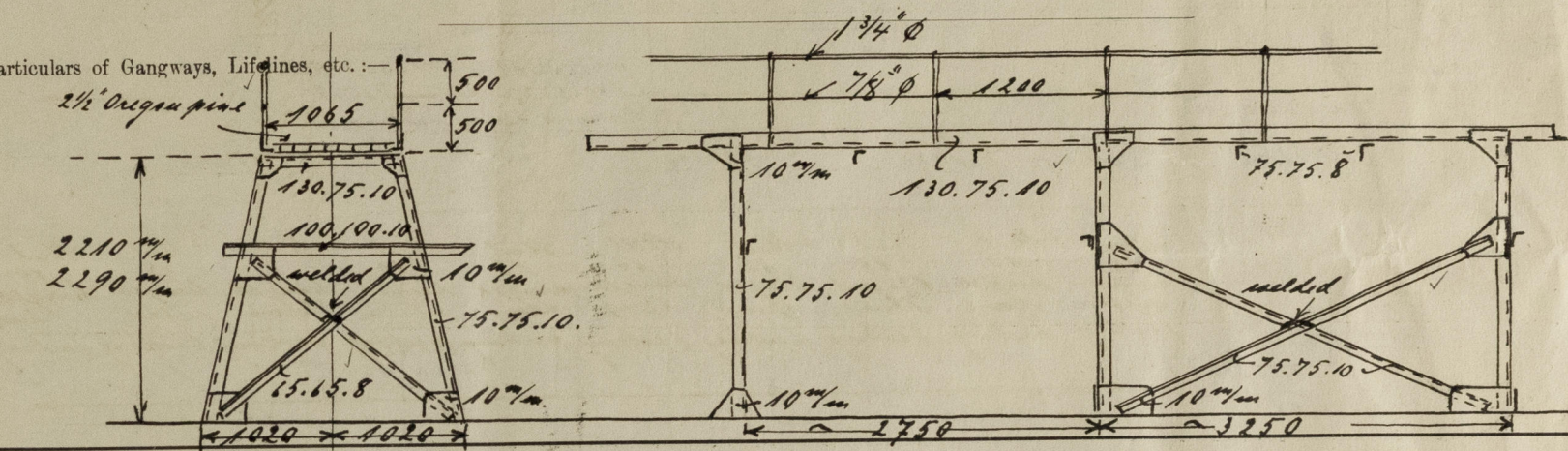
Particulars of Side Scuttles:—

Two side scuttles strongly constructed with hinged dead lights are fitted on port & starboard side below freeboard deck aft in way of steering space.
 Vertical distance of sill of lowest side scuttle above top of keel - 10700 mm.
 Side scuttles in forecable and poop spaces are of substantial construction and fitted with hinged dead lights.

Particulars of Guard Rails:—

Open rail on freeboard deck, forecable and poop deck.
 1070 mm spaced about 1200 mm.

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	-	-	Open rail	-	-	-
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	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead (at sides) ...	300.12	11.5	250.90.12.5	800	bracketed at top & bottom	700.1500	530	2440
Raised Quarter Deck Bulkhead ...	-	-	-	-	welded at top & bottom	950.1250	590	2210
Bridge, After Bulkhead ...	250.12	8.0	130.65.8	700.870	bracketed at top & bottom	700.1500	460	2210
Bridge, Forward Bulkhead ...	250.14	12.11.5	250.90.12	700.870	bracketed at top & bottom	700.1500	590	2290
Forecable Bulkhead ...	250.12	7.5	100.75.10	730	none	700.1500	460	2290
PUMP ROOM HOUSE	250.10	8.0	150.75.10	870	bracketed at top & bottom	700.1500	610	2135
WHOLE Aft ...	250.10	8.0	150.75.10	870	bracketed at top & bottom	700.1500	610	2135
PUMP ROOM HOUSE	250.10	8.0	150.75.10	870	bracketed at top & bottom	700.1500	610	2135
WHOLE Forward ...	250.10	8.0	150.75.10	870	bracketed at top & bottom	700.1500	610	2135
Exposed Machinery Casings on Freeboard	150.150	13.5	300.90.15	870	bracketed at top & bottom	700.1500	460	2440
Exposed Machinery Casings on Superstructure Decks	300.8.5	8.0	130.65.8	750	bracketed at top & bottom	700.1500	460	2440
Machinery Casings within Superstructures fitted with Class I Closing Appliances	300.8.5	7.5	115.65.8	1460	bracketed at top	700.1650	350	2440
Deckhouses on Flush Deck Ships	-	-	-	-	-	-	-	-

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

Poop Bulkhead	Two hinged steel doors, rubber packing, capable of being manipulated from both sides.
Raised Quarter Deck Bulkhead	-
Bridge, After Bulkhead	Two hinged steel doors, closed by portable steel plates with 7/8" hook bolts, spaced 300 mm.
Bridge, Forward Bulkhead	Two hinged steel doors, rubber packing, capable of being manipulated from both sides.
Forecable Bulkhead	Two hinged steel doors, closed by portable steel plates with 7/8" hook bolts, spaced 300 mm.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Two hinged steel doors, rubber packing, capable of being manipulated from both sides.
Exposed Machinery Casings on Superstructure Decks	Two hinged steel doors, rubber packing, capable of being manipulated from both sides.
Machinery Casings within Superstructures fitted with Class I Closing Appliances	Two hinged steel doors, closed by lock & key only.
PUMP ROOM FREEB. DECK	-
Deckhouses on WHOLE DECK	One hinged steel door, rubber packing, capable of being manipulated from both sides.

