

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

IRENE.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Prop, R.Q. deck, Bridge and Forecastle  
Trunk on R.Q. deck.  
(Type of Superstructures.)

Port of Survey Helsingborg.

Date of Survey 28<sup>th</sup> May, 1938.

Name of Surveyor P.O. Jørgen

Particulars of Classification 100 A 1  
strengthened for navigation in ice  
(Contemplated)

Ship's Name MIRAMAR Nationality and Port of Registry Swedish Official Number 8271 Gross Tonnage 1544 Date of Build 1938

Moulded Dimensions: Length 44.905 M. Breadth 11.58 M. Depth 5.335 M.

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3174 tons = 3145 M<sup>3</sup> tons

Coefficient of fineness for use with Tables .769

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	5.335	(a) Where D is greater than Table depth (D - Table depth) R = <u>8.33(5.347 - 5.194) 19.68 = + 25 mm.</u>		Moulded Breadth (B)	= 11.58 M.
Stringer plate	12 mm	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	= 232 mm.
Sheathing on exposed deck				Ship's Round of Beam	= 240 mm.
$T \left( \frac{L-S}{L} \right) =$				Difference	excess = 8 mm.
Depth for Freeboard (D) =	5.347	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	= $\frac{8}{4} \times .1536 = \text{NEGLIGIBLE.}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) m/m	Equivalent Enclosed Length (S <sub>1</sub> ) m/m	Height m/m	Height Correction	Effective Length (E) m/m
Poop enclosed	5850	5850	2135	✓	5850
„ overhang					
R.Q.D. enclosed	23400	23400	1200	1200/1243	22590
„ overhang					
Bridge enclosed	32760 x .9	29484	2135		29484
„ overhang aft	see sketch		see sketch		
„ overhang forward					
Fore enclosed	5950	5950	2135	✓	5950
„ overhang	1250	1250	2135	✓	1250
Trunk aft	23400		225		
„ forward					
Tonnage opening aft					
„ forward					
Total	69210	65934			65124

Standard Height of Superstructure	1847 mm
„ „ R.Q.D.	1243 mm
Deduction for complete superstructure	802 mm
Percentage covered $\frac{S}{L} =$	88.84
„ „ $\frac{S_1}{L} =$	84.64
„ „ $\frac{E}{L} =$	83.59
Percentage from Table, Line A.	79.75
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	802 x .7975 = 640 mm.

## SHEER CORRECTION.

Station	Standard Ordinate mm	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	903	1	903	1039	1039	1	1039
$\frac{1}{2}$ L from A.P.	401	4	1604	345	345	4	1380
$\frac{2}{3}$ L „	100	2	200	36	36	2	72
Amidships	-	4	-	0	-	4	-
$\frac{2}{3}$ L from F.P.	201	2	402	213	213	2	426
$\frac{1}{2}$ L „	803	4	3212	823	823	4	3292
F.P.	1806	1	1806	2060	2060	1	2060
Total			8127				8269

Mean actual sheer aft = Deficient. Greater than 75% of standard.  
Mean standard sheer aftMean actual sheer forward = Excess.  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = &gt; .1 L.

„ „ aft of „ = &gt; .1 L.

## SHEER AFT.

## STANDARD.

903 - 1 - 903	1039 - 1 - 1039	2182
401 - 3 - 1203	345 - 3 - 1035	2406
100 - 2 - 300	36 - 2 - 108	2182
		2406

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{142}{18} \left( .75 \times .4442 \right) = -27 \text{ mm.}$ 

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 = 5.347

Summer freeboard = .287

Moulded draught (d) = 5.060

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{48} = 105 \text{ mm.}$ 

Addition for Winter North Atlantic Freeboard (if required) = 105 + 50 = 155 mm.

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 3596$ 

Tons per inch immersion at summer load water line

T = 19.50

Deduction =  $\frac{\Delta}{40 T} \text{ inches} = 4.61 \text{ inches}$ 

= 117 mm.

see back of report.

TABULAR FREEBOARD (corrected for Fresh Deck (if required))

Correction for coefficient  $\frac{.769 + .68}{1.36} = \frac{1.449}{1.36}$ 

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

848 mm

904 mm

+ mm

- mm

25

640

2

-

-

-

25

642

- 617 mm

Summer Freeboard = 287 mm.

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

287 mm

65

170

182

392

442



Miramar.

Particulars of Scuppers and Sanitar

Particulars of Flush Bunker Scuttles:— One on port side on bridge deck fwd. diam. = 460  $\frac{7}{16}$  in. with cast iron framing riveted to deck and closed by permanently fixed cover, secured by bayonet joints and chain attachments.

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

File deck:— 1 to store 915 x 7.5, \$ 150; 1 to hold 915 x 9.5, \$ 400

Bridge dk.— 1 pas to fwd hold 915 x 7.5, \$ 400; 1 pas at after end passing through deck-house to hold exposed casing 8" dia; coaming on boat deck 700 x 5, \$ 450

R.G dk.— 1 to hold going through engine casing; coaming at boat deck 1000 x 7, \$ 450

1 to after hold built to prop house 700 x 8, \$ 450. 1 Tunnel ventilator 150 x 5 steel pipe, p-2500, specially supported

*All ventilators with wood covers and tarpaulins*

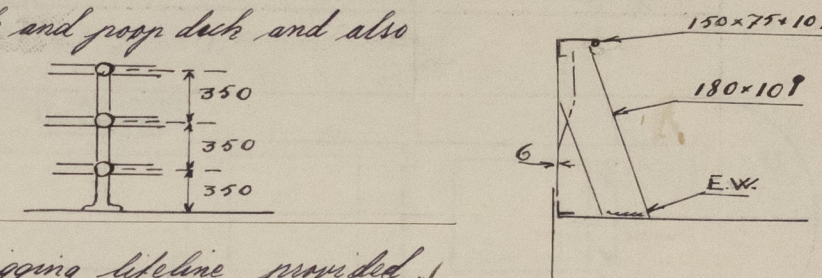

Particulars of Gangway Cargo and Coaling Ports :—

NONE

Particulars of Side Scuttles:— All side scuttles in way of bridge and poop of substantial construction and fitted with hinged deadlights.

Particulars of Guard Rails :- *Open rail round forecable and poop deck and also at front end of bridge deck.*

*Bulwark in way of bridge deck.*



Particulars of Gangways, Lifelines, etc.:— *Arrangement for rigging lifeline provided.*

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>RG dock...</i>	<i>23400</i>	<i>1110</i>	<i>500 x 800</i>	<i>4</i>	<i>1.6 m<sup>2</sup></i>	<i>1.68 m<sup>2</sup></i> <i>1.42</i>
Forward Well ... <i>Bridge deck</i>	<i>9945</i> <i>25255</i>	<i>1410</i> <i>1090</i>	<i>610 x 810</i> <i>460 x 810</i>	<i>2</i> <i>2</i>	<i>0.99 m<sup>2</sup></i> <i>0.75 m<sup>2</sup></i>	<i>0.91 m<sup>2</sup></i> <i>0.77 m<sup>2</sup></i>
<p>State position of each freeing port ... } After Well: — <i>23, 7, 122 x 178 m. from bridge after b'hd.</i> Lower edge <i>240 mm</i> above deck</p> <p>(F. and A. position and height above deck edge) } Forward Well: — <i>24 x 6.4 m. from b'hd. b'hd.</i> <i>230 mm</i></p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: } <i>Bridge deck: 16.3 x 24.5 m. Bridge forward b'hd</i> <i>180 mm</i></p> <p><i>Balanced shutters (not in bridge bulwark).</i> <i>1 rail spaced 200 mm in each</i></p>						
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 ... ..	NONE	9 ✓	130 x 75 x 7.5 L	800 ✓	Lugs at top Cont. bottom	NONE	NONE	ABOVE R.Q. DECK 935	
Raised Quarter Deck Bulkhead ...	NONE	8 ✓	200 x 75 x 10.5 L 75 x 75 x 9 L	825 ✓	Lugs at top Cont. bottom	" -	" -	1200 ABOVE R.Q. DECK 935	
Bridge, After Bulkhead ... ..	NONE	9 ✓	depth pl. p.s.	710 ✓	NONE	" -	" -	935	
Bridge, Forward Bulkhead ... ..	660 x 9.5	8.5 ✓	200 x 75 x 9.5 L	760 ✓	Lugs at top and bottom	R 1820 x 915 S. 1220 x 915	600	Mid side 2135	
Forecastle Bulkhead ... ..	610 x 8	6 ✓	100 x 75 x 8 L 90 x 90 x 11 in L 300 x 75 L horizontal	760 ✓	NONE	915 x 1220	620	2135	
Trunk, Aft ... ..	NONE	11 ✓		1638	" -	NONE	NONE	935	
Trunk, Forward ... ..	✓								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Not exposed								
Exposed Machinery Casings on Super-structure Decks ... ..	NONE	7.5 ✓	90 x 75 x 7.5 L	760 ✓	NONE at top Cont. bottom	600 x 1500 ✓	430 ✓	2135	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	BOILER - 1100 x 9 MACH. - 460 x 9	6 ✓	90 x 75 x 7.5 ✓	760 ✓	Cont. top None at bottom	Coal shoot 730 x 1850 ✓	240	2135	
Enhance to crew quarters and Deckhouses on Deck Deck Ships	NONE	7 ✓	75 x 75 x 7 L	790 ✓	NONE ✓	600 x 1500 ✓	460 ✓	2135	

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

Poop Bulkhead	...	...	<del>None</del> no openings.
Raised Quarter Deck Bulkhead	...	...	<del>None</del> no openings.
Bridge, After Bulkhead	...	...	<del>None</del> no openings.
Bridge, Forward Bulkhead	...	...	Portable 3.5% steel plate p. & s. with hook bolts passing through plate 305 <sup>7/8</sup> apart. Strong hinged steel door, capable of being manipulated from both sides.
Forecastle Bulkhead	...	...	Hinged steel doors, capable of being manipulated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	Coal shoot covered by 6 <sup>3/4</sup> hinged steel covers, secured by hook bolts.
Exposed Machinery Casings on Superstructure Decks	...	...	Hinged steel doors, capable of being manipulated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	
Enhance to new quarter of Bulkhead on Flush Deck Ship	...	...	



Sketch to store in

Forecastle Forecastle Poop

Forecastle  
deck

Upper  
deck

580 x 740

580 x 600

630 x 660

130

480

460

5

6

7

5

6

7

←

NONE

→

←

NONE

→

←

NONE

→

←

NONE

→

Slingsed steel  
cover with  
clips.  
Packed  
watertight.

Wood

60

Stowage

50

NONE

410

500

NONE

2

2

2/2/18  
009267-009277-0318  
0092600-492600

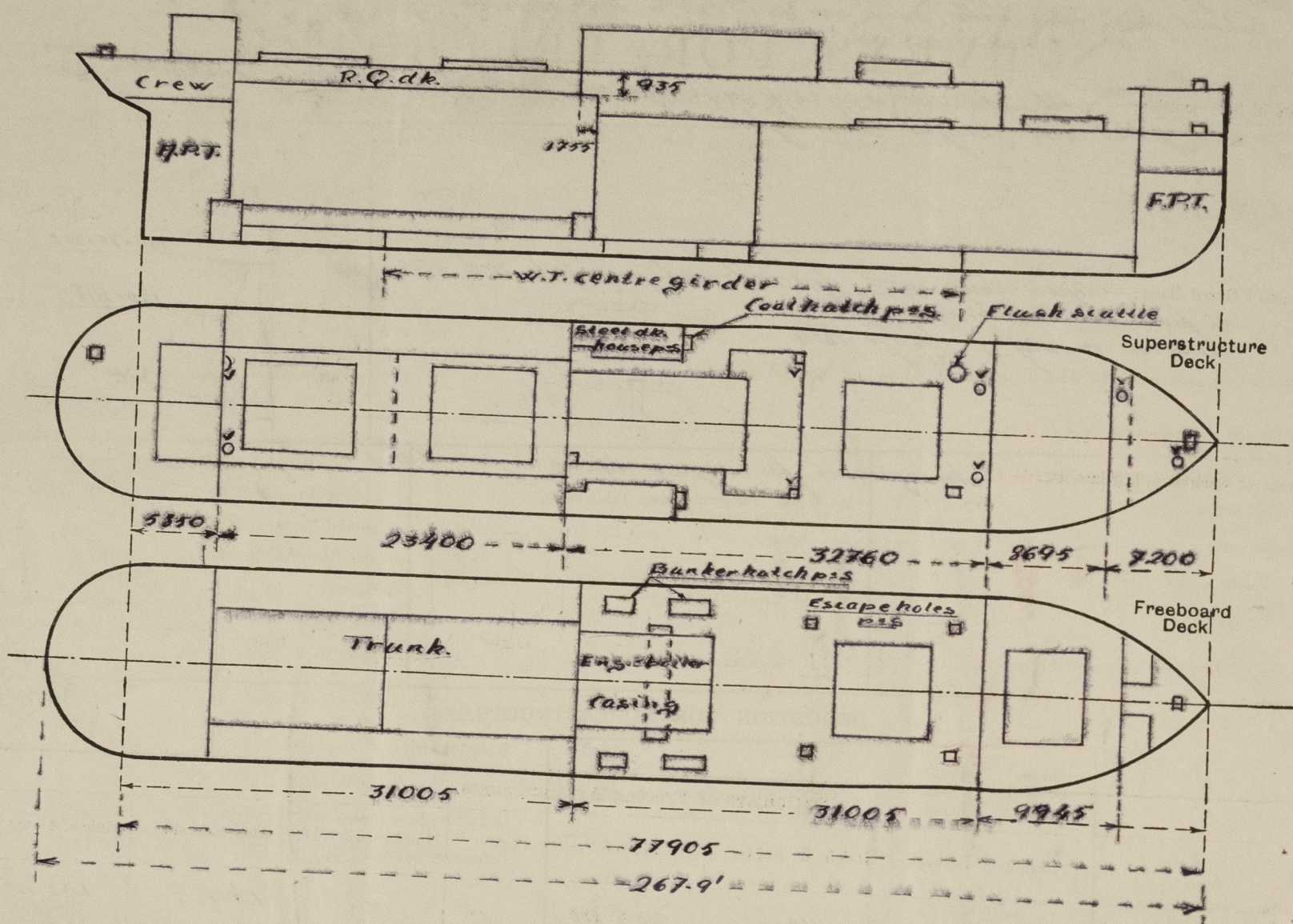
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Length of



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 shown on the following sketches:—



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

A timber deck cargo freeboard is also desired.  
 The hand steering gear on poop protected by steel cover.  
 The steering rods laid along trunk deck in channel and are efficiently protected.  
 Watertight centre division in double bottom tanks Nos. 2, 3, 4 & 5.  
 Locket angles for uprights and eyeplates for lashings fitted as per Rule.

Displacement and tons/inch. immersion at a moulded draught 75%, 85% & 95% of moulded depth.

Draught	Displacement	Tons/inch.
75%	27775	18.85
85%	3174	19.15
95%	3583	19.50

Builder's name and yard number *Helsingborgs Varvs AB, Helsingborg. Yard No. 58.*

Names of sister ships *3 "IRENE"*

Owners *Proden AB, Gothenburg.*

Fee *2 Kr (Sw.) 190:00.*

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