

STEEL ~~STEAMER~~ OR MOTORSHIP.

Received at London Office AUG. 17 1940

State if Report has been sent on the Freeboard of the Vessel *Yes.*State if Report is sent on the Machinery of the Vessel *Yes.*

Date of completion of report

*June 14<sup>th</sup> 1940*

Port of

*Gothenburg*

No.

*12993*

Survey held at

*Gothenburg*

Date First Survey

*May 22<sup>nd</sup> 1939*

Last Survey

*June 14<sup>th</sup> 1940*

On the

(State if Machinery fitted Aft and if Single, Twin or Triple Screw)

*Single Screw Motorship "BELLONA"**Machinery fitted aft.*

State Type

(Full Scantling, Complete Superstructure with or without Tonnage Openings)

*Full Scantling*

State Type of Erections

*Deck + Forecastle (Open Bridge)*

TONNAGE under Tonnage Deck...

*10331.21*CLASS *+ 100 A1*

State if with freeboard as condition of Class

No

Built at

*Gothenburg*

Launched

*Dec 18<sup>th</sup> 1939*

Yard No.

*540*

Builders

*A/B Götaverken*

Owners

*Rederiaktiebolaget Zenit.*

Managers

*T. Peterson*

(Where necessary to be entered in Reg. Book.)

Residence

*Gothenburg.*

Port of Registry

*Gothenburg.*

If surveyed while building, afloat, or in dry dock

*Building, Afloat in Floating dock.*

## REGISTERED DIMENSIONS.

FEET.

*533.86**66.17**39.21*

Length from fore part of stem to after part of stern most on summer L.W.L. See Sec. 3 (1a)

*L 511' 10"*

Breadth (greatest moulded)

*B 66' 0"*

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c)

*D 38' 9"*

1st Longitudinal Number (L x D)

*= 19275*

2nd Numeral L x (B + D)

*= 53056*

Framing Depth "d," at middle of length. See Sec. 3 (1d)

*13.21*

Proportions—Depth to Length—Uppermost continuous deck to top of keel

*13.21*

Do. Long Bridge to top of keel

Draught Moulded

*29' 5 1/2"*

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	IN SHIP.	Any Departure from Approved Plans to be Noted.		IN SHIP.	Any Departure from Approved Plans to be Noted.
ES, Spacing amidships	825 ✓		Bracket Floors, Frame	✓	
from 3/4 length amidships to Collision bulkhead	825 / 685 ✓		Reversed Frame	✓	
in peaks	610 ✓		Vertical Struts	✓	
FRAMING.			Centre Girder, depth and thickness	13.5 - 12.5 ✓	
me Amidships, Angle, E or F	250 90 12 ✓		top Angles	90 90 13 Dk. ✓	
Extends up to	Upper deck ✓		bottom Angles	Welded ✓	
Reversed Frame Amidships, Angle, E	280 90 12 ✓		Side Girders, No. each side and thickness	2 @ 19.0 ✓	
Extends up to	Longitudinal ✓		Margin Plate depth (excl. of flange) and thickness	Level 14.5 ✓	
th of Framing Girder	✓		Vertical Angle to Tank side	✓	
mes in Uppermost Continuous 'tween Decks, Angle, E or F	✓		Bracket abaft 1/2 len. from stem	✓	
Second 'tween Decks, Angle, E or F	✓		Vertical Angle to Tank side	✓	
Third " " " "	✓		Bracket from forward 1/2 len. from stem to Panting Area	✓	
from 1/2 len. for'd. to 15% len. from Stem	✓		Gussets, spacing and scantling abaft 1/2 len. from stem	✓	
in Peaks, Angle, E or F	230 90 12.5 ✓		Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area	✓	
meter and Spacing of Rivets through Frame and Shell Plating amidships	25 mm " 135" " 29.10. 40 ✓		Tank Side Brackets, height above base line at toe of Frame and thickness	✓	
e if Frame Joggled	Bottom frame only ✓		INNER BOTTOM PLATING.		
the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes ✓		Breadth and thickness of Middle Line Strake	2690 x 14.5 ✓	
the scantlings and arrangements in way the Bottom Forward in accordance with Rules and/or as approved?	Yes ✓		Thickness of remainder in Holds	14.5 ✓	
LE BOTTOM.			Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	Yes ✓	
rs, Depth and thickness at mid-line in Holds	✓		BEAMS.		
Height of Brackets at side above base line at toe of frame	✓		Uppermost Continuous Deck, amidships	200 90 10.5 ✓	
le Line Keelson, on Floors/ Angles, E or F	200 90 14 Dk. ✓		in Centre Tanks in Wells, Angle, E or F	✓	
Through Plate on Intercostal Plate	1600 x 12.5 ✓		in Side Tanks in way of Bridge, Angle, E or F	230 90 11 ✓	
Foundation Plate on Floors	✓		Spacing	825 ✓	
Flat Plate Keel Angles	Welded ✓		Second Deck, amidships, Angle, E or F	✓	
Keelsons, No. each side	me in centre to me in wing tanks ✓		Spacing	✓	
Depth to Through	1600 x 12.5 ✓		Third Deck, amidships, Angle, E or F	✓	
thickness of Intercoastal Plate	320 100 14 ✓		Spacing	✓	
Top Angles	150 100 14 ✓		Fourth Deck, amidships, Angle, E or F	✓	
LE BOTTOM. in Machinery Space			Spacing	230 90 11 ✓	
d Floors, thickness and spacing	11.5 @ 825 ✓		Poop Deck, Angle, E or F	200 75 10 ✓	
Are Frame and Reversed Frame joggled?	Frame only ✓		Spacing	825 / 610 ✓	
Bracket Floors, breadth and thickness at middle line	✓		Bridge Deck, Angle, E or F	✓	
breadth and thickness at margin plate	✓		Spacing	✓	
Forecastle Deck, Angle, E or F	230 90 11 ✓				
Spacing	655 / 610 ✓				



## PILLARS AND DECKS.

	<i>4 1/2</i> INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.	<i>4 1/2</i> INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
<b>PILLARS</b> , No. of Rows.....	✓		Stringer Plate, <i>Face bar</i> breadth and thickness in way of Bridge .....	150 7 flange ✓
„ in 'tween Decks, Size and Spacing.....	✓		Thickness of Plating abreast Deck openings in way of Wells .....	✓
„ „ „ „ „	✓		Thickness of Plating abreast Deck openings in way of Bridge .....	✓
„ in Holds „ „	✓		Thickness of Plating within line of openings...	✓
<i>Two "Longitudinal" " "</i> <b>Centre-line Bulkheads</b> ✓			If Sheathed, material and thickness .....	✓
Stiffeners and Spacing.....	<i>240 x 7.5 - 8.5 x 13</i> <i>@ 82.5</i> ✓	✓	<b>Third Deck. Middle Stringer</b>	
Plating, thickness of <i>from Top</i> 11, 10, 10.5, 11, 11.5, 13.5		✓	Stringer Plate, breadth and thickness.....	1300 x 11.5 ✓
<b>STRINGERS AND DECKS.</b>			<i>Face Bar</i>	150 90 12 ✓ OA
<b>Uppermost Continuous Deck.</b>			If Placed, state thickness .....	
Stringer Plate, breadth and thickness in Wells	237.5 x 25 ✓	✓	<b>Fourth Deck. Bottom Stringer</b>	
„ „ „ „ in way of Bridge	✓		Stringer Plate, breadth and thickness.....	1300 x 11.5 ✓
„ Angle in Wells .....	160 160 25 ✓	✓	<i>Face Bar</i>	200 100 16 ✓
Thickness of Plating abreast Deck openings in way of Wells .....	24 ✓	✓	If Placed, state thickness .....	
Thickness of Plating abreast Deck openings in way of Bridge .....	-		<b>Poop Deck.</b> <i>Thickness</i> ✓	10 ✓
Thickness of Plating within line of openings...	12 ✓	✓	Stringer Plate, breadth and thickness .....	
If Sheathed, material and thickness .....	✓		Plating, Sheathing, material and thickness ...	6.5 / 2 1/2 " OS. ✓
<b>Second Deck. Upper Stringer</b>			<b>Bridge Deck.</b>	
Stringer Plate, breadth and thickness in Wells...	1300 x 11.5 ✓	✓	Stringer Plate, breadth and thickness.....	✓
			Plating, Sheathing, material and thickness ...	✓
			<b>Forecastle Deck.</b>	
			Stringer Plate, breadth and thickness.....	10 ✓
			Plating, <del>Sheathing</del> , material and thickness ...	9 ✓

## SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged? <i>one strake side shell</i>			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		SINGLE OR DOUBLE.	RIVETS.		NO. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth. <i>inches</i>	Thickness. <i>inches</i>	Thickness. <i>inches</i>	Thickness. <i>inches</i>			Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
FLAT PLATE KEEL .....	<i>23 9/10</i>	<i>25.0</i>	<i>21.5</i>	<i>21.5</i>	<i>Approved 2380</i>	<i>Double</i>	<i>25</i>	<i>103</i>	<i>1</i>			
„ DBLG. (if any)			<i>✓</i>									
BOTTOM PLATING, No. of Strakes .....		<i>19.5</i>	<i>21.0</i>	<i>14.5</i>		<i>Double</i>	<i>25</i>	<i>103</i>				
BILGE PLATING, No. of Strakes .....		<i>19.5</i>	<i>19.0</i>	<i>14.0</i>		<i>Double</i>	<i>25</i>	<i>103</i>				
SIDE PLATING, No. of Strakes .....		<i>18.5</i>	<i>12.5</i>	<i>12.5</i>		<i>Table 1 c</i>	<i>22</i>	<i>90.6</i>				
UPPER DECK, Sheer-strake in Wells .....	<i>21 5/10</i>	<i>26.0</i>	<i>✓</i>	<i>✓</i>	<i>Approved 2130</i>							
UPPER DECK, Sheer-strake in Bridge ...			<i>✓</i>	<i>✓</i>								
STRAKE BELOW Sheer-strake in Wells .....	<i>22 2/10</i>	<i>23.0</i>	<i>✓</i>	<i>✓</i>	<i>Approved 2215</i>	<i>Double</i>	<i>25</i>	<i>103</i>				
STRAKE BELOW Sheer-strake in Bridge ...				<i>10.5</i>	<i>✓</i>	<i>Single</i>	<i>22</i>	<i>90.6</i>				
POOP SIDE PLATING .....												
BRIDGE SIDE PLATING ...		<i>✓</i>										
FOREC'TLE SIDE PLATING			<i>11.5</i>	<i>✓</i>		<i>Single</i>	<i>22</i>	<i>90.6</i>	<i>✓</i>			

## WATERTIGHT BULKHEADS.

## FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—		Casting or Forging.		Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
Extending to Upper Deck (Sec. 3 c) 12 of 4 in Centre Tank only						
,, Deck next below						
As per Rule 8						
		STIFFENERS.				
Plating Thickness.		VERTICAL.		HORIZONTAL.		
7 in.		Scantlings.	Spacing.	Scantlings.	Spacing.	
MIDSHIP BULKH'D, Upper tween decks		—	—	—	—	
,, Second ,,		—	—	—	—	
,, Third ,,		—	—	—	—	
,, Holds .....		13.5 ✓ 10.5 ✓ 11.5, 10, 9, 8, 7.5, 7.5, FR. 10, 20.0-10.0	250 x 90 x 10.5 ✓ 150 x 75 x 9 L ✓ 230 x 90 x 11 L ✓ 150 x 75 x 9 L ✓	810 ✓ 610 ✓ 610 ✓ 610 ✓	No per plan ✓ Peak Tank Top & 3 Stringers ✓ Peak Top & one Hung Stringer ✓	
COLLISION ,, (in Hold) .....						
AFTER PEAK ,, " ,, 15 ✓		7.5-9.0	150 x 75 x 9 L ✓	610 ✓		

  

		Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar .....	Flat plate keel ✓				
STEM .....	Plate Stem ✓				
STERN FRAME	Propeller Post .....	Casting by Notala ✓			
	Rudder ,, .....	as per App. plan ✓			
Speed of Vessel .....	14 1/2 knots ✓				
RUDDER—Type .....	Simplex. as				
,, A x D .....	per appd 2957- Forging by Notala				
,, Diam. of head .....	appd 2957- diameter of main piece (see plan)				
,, Mainpiece at top pintle .....	plan.				
,, " heel ..					
,, how constructed .....					
,, double or single plate coupling, vertical or horizontal .....	Double Horizontal				

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) *Walter Steel Co., Davenport*  
*Tenneco 4/8, Donnanveto Tenneco, Strömshøj 4/8, Kon ung Staatliche Stahlfabrik, Bethlehem Steel Co.,*  
*Carnegie Illinois Steel Corp., Deutsche Röhrenwerke, 4/8 Notale, Kohlewa 4/8, Dortmund Hoerder, 4/8 Norsk Stahlfabrik.*

Has the Steel been tested as required by the Rules? *Yes. ✓ Open hearth process ✓*



EQUIPMENT No. <u>9</u>										LETTER <u>g</u>		ANCHORS.				
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK.			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.	
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.					
<u>3425</u>	1st Bower ...	<u>91</u>	<u>3</u>	<u>17</u>	-	-	-	<u>64</u>	.	.	.	<u>271.0.0</u> ✓	"Gusson" Stockless	<u>M. J. J. &amp; Co.,</u> <u>Naples, Italy</u>	<u>Makers Notes</u> <u>14.12.39 N. Stolch</u>	✓
<u>3427</u>	2nd " ...	<u>88</u>	<u>3</u>	<u>5</u>	-	-	-	<u>62</u>	<u>15</u>	.	.		"	"	"	✓
<u>3426</u>	3rd " ...	<u>93</u>	.	.	-	-	-	<u>64</u>	<u>10</u>	.	.		"	"	"	✓
	Collective weight.	<u>272</u>	<u>2</u>	<u>22</u>	✓	✓	✓									✓
<u>3428</u>	Stream .....	<u>28</u>	<u>1</u>	<u>7</u>	<u>8</u>	<u>0</u>	<u>12</u>	<u>27</u>	<u>8</u>	.	<u>14</u>	<u>28.0.0</u>	<u>Gunson Stock</u>	"	"	✓

CHAIN CABLES.										HAWSERS AND WARPS.									
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.				Length and size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and size supplied.		Breaking Test of Steel Wire.	Length and size per Table 53.	
	Length.	Diam.	Statu- tory.	Break- ing.	Supplied.	Per Rule.	Cwts.	qrs.	lbs.	Length.	Diam.				Length.	Cir.		Length.	Cir.
1538	334 1/2	2 1/4	15	10	134.3	24	1200	.	.	330	2 1/4	Standard of Stockholm	22.12.39 J. Zerst	TOWLINE...	150	62	112.3	150	62
														HAWSERS & WARPS	100	3	25.7	100	2 3/4
															100	3	20.7	100	2 3/4
Iron Stream Chain or Steel Wire	120	5 1/2								120	5 1/2								

Steering Gear, Type (Power or hand) Brown Bros. Electric Hydraulic Alternative Means of Steering The pumps on main gear

Steering Chains (Size and Test) Windlass Electric by Thirige Boats 2 @ 25'0" x 7'9" x 3'2"  
2 @ 22'0" x 7'3" x 2'9" one motor

Ceiling in Hold, thickness and material 3' in 2 1/2" battens Cargo Battens, thickness, material and spacing None

Cargo Hatchways.-(Upper Deck) Steel Coaming 8 1/2" high. No light Thickness of Hatches 12.5" - hinged steel covers.

Size of Hatchways No. 1 (Fwd.) 0.70 x 1.69 m. No. 2 No. 3 No. 4 No. 5 No. 6 No. 6

Number of Shifting Beams and/or Fore and Afters None

Builder's Signature AKTIEBOLAGET GÖTAVERKEN

GENERAL DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel Motor ship

(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo Oil Tanker The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point (where required to be inserted in the Notation).

The vessel has been built in accordance with the approved plans & instructions, the Secretary's letters of various dates & in conformity with the Rules (1938/9) for the class contemplated.

The materials & workmanship are good. The ship is constructed to carry Petroleum in Bulk.

The ship is also constructed to carry Oil Fuel in the double bottom under the machinery, in the wing tanks & cross bunker at the forward end of the machinery space & in the forward deep tanks, & in both after peak tanks. The flash point of the Oil Fuel is above 150° F.

Lubricating Oil is carried in the centre portion of the double bottom under the engine.

The tanks, cofferdams, bulkheads, decks & W.T. doors on deck have been tested in accordance with the Rules. The requirements of Section 20 of the Rules have been complied with where applicable.

The plating has been verified & the marks cut in on the vessel's sides.

The steering gear & the windlass have been tested under working conditions.

Conv. Freight for Kr 450:00

The amount of Entry Fee ..... £ 228:00

Special Survey Fee.... £ 3276:35

Travelling Expenses, if any £ 13:50

Late fees. 130:00

State whether the Vessel has been built under Special Survey Yes

Fees applied for,

18th Jan 1940

Received by me,

24th Aug 1940

(Special notations, where part of class, to be stated.)

I am of opinion the Vessel should be Classed

100A1  
"Carrying Petroleum in Bulk"; "Bulk of Shell  
upper deck plating electrically welded."

Signature

H. J. Adams.

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to Göteborg

Date of issue 4/9/40

Committee's Minute

Character assigned

+ 100A1

Carrying petroleum in bulk

Lloyd's Reg.

L.

+ Limb. 6. 40

200-150

oil Lym. Co.

Write Got

for R. J. please

0310 2/2



GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

Plans now forwarded

Midship Section  
Longitudinal Section + plans  
Shell expansion  
After Peak  
Fore peak + deep Tank  
Web frames in Machinery Space.  
Double bottom + Engine seating

"As fitted" plans now forwarded

Midship Section  
Longitudinal section + plans  
Framing + Shell expansion.

Certificates in respect of Ship Castings + Forgings are also forwarded.

The Swedish Tonnage figures are:—

Gross 11259.83. Under deck 10331.21 Net. 8646.24

PARTICULARS OF ELECTRIC WELDING (if employed) Butts of shell + upper deck plating; Transverse + longitudinal bulkheads excluding boundaries, butts of bottom longitudinal + deck girders in tanks, bottom + side longitudinal girders to shell + longitudinal bulkheads, transverse bulkhead girders to transverse bulkheads + other details.

Electrodes used OK47 & OK52. See letter 29.10.40

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Carrying petroleum in bulk, Butts of shell + upper deck plating electrically welded, Cruiser stern, wireless. Direction finding apparatus. Echo sounding device.

	Head	Shank
Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower 60.2.15 N.S. 2356. 27.9.39 2nd " 58.1.25 N.S. 2358. 27.9.39 3rd " 62.2.23 N.S. 2357. 27.9.39 Stream 26.0.10 N.S. 2402 1.12.39	25.3.16 N.S. 2401. 1.12.39 25.3.20 N.S. 2399 1.12.39 25.3.11 N.S. 2400 1.12.39

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 102 ft., R.Q.D. — ft., Bridge — ft., Forecastle 64 ft.

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

Official No. 8430 Signal Letters SDMA Extreme Breadth over Belting — Over-all Length 540.25'

No. and Material of Decks One deck (steel)

Parts of Bottom of Vessel coated with cement or approved composition Fore Peak, After Peak, F.W. tanks in Double Bottom.

Particulars of composition (if fitted) and of approval

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft, (F. 13-28. F. Water Tank)	40.5	88.4	Fore peak tank,	26.0'	134.2
Double bottom, under Engines and Boilers, (F. 20-45. O.F.T.)	40.5	243.5	After peak tank, Upper.	14.0'	297.2
Wing Bunker, O.F.	16.2	515.0	Deep tank, aft, Lower	20.0'	89.4
Double bottom, if under Engines only, Cross Bunker, O.F.	8.1	292.5	Deep tank, forward, (oil fuel)	26.9	507.0
Double bottom, if under Boilers only, —	—	—	Other tanks, if fitted,		
Double bottom, forward, —	—	—	(If necessary, furnish further information by sketch.)		
Total length (if continuous) and Capacity	135.5	331.9			

Order for Special Survey No. 270  
Date 20.4.38  
Dates of Surveys held while building  
1939. May 22. 31. June 16. July 12. 18. 24. 25. Aug. 14. 21. 23. 29. 31. Sept. 4. 9. 13. 20. 22. 28.  
Oct. 3. 5. 9. 10. 11. 12. 16. 18. 19. 23. 23. 24. 25. 26. 27. 30. Nov. 2. 3. 3. 8. 11. 14. 15. 17. 20. 21. 22.  
28. 30. Dec. 1. 4. 5. 6. 7. 9. 13. 14. 16. 20. 29. 1940. Jan. 2. 3. 4. 5. 8. 10. 17. 23. 26.  
20. 31. Feb. 1. 5. 6. 12. 14. 17. 19. 20. 21. 23. 23. 26. 28. 29. March. 1. 2. 4. 5. 7. 12. 19. 20.  
27. 28. 29. 30. 31. 31. 31. April 1. 2. 3. 5. 8. 9. 10. 21. 23. 24. 25. 26. 29. Total No. of Visits 114  
May 2. 4. 7. June 14