

STEEL STEAMER or MOTORSHIP.

Received at London Office.

1 JAN 1942

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

29th Decr. 1941

Port of

Glasgow

Survey held at

Scotstoun - Glasgow

Date First Survey

9th Octr. 1940

Last Survey

22nd Decr.

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

Steel S.S. EMPIRE BAIRN

Machinery aft.

Single Screw

State Type

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

Full Scantling

Old Tanker

State Type of Erections

Long Loop, Trunk & Fore castle

TONNAGE under Tonnage Deck

536.09

CLASS +100 A-1 Carrying Petroleum in Bulk

State if with freeboard as condition of Class

Do. of space or spaces between Tonnage Dk. and Upper Dk.

Total

536.09

Gross Tonnage

813.11

Register Tonnage

332.93

REGISTERED DIMENSIONS.

FEET.

Length

193.0

Breadth

30.7

Depth

13.8

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

FEET.

L 190

Breadth (greatest moulded)

B 30.5

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

D 14.0

1st Longitudinal Number (L x D)

= 2660

2nd Numeral L x (B + D)

= 8453

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

✓

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

13.57

Do. Long Bridge to top of keel

✓

Draught Moulded

13'0 5/8"

Built at

Scotstoun Glasgow

Launched

23rd Oct. 1941

Yard No. 67

Builders

The Blythswood S. B. Co

Owners

The Ministry of War Transport

Managers

Bulk Oil S.S. Co Ltd

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

Residence 130/136 Minories, London E.C.3

Port of Registry

Glasgow

If surveyed while building, afloat, or in dry dock

While building and afloat

Longitudinal Framing as per Page 5

FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	22 1/2		Bracket Floors, Frame		
from 3/5L to 1/5A	22 1/2		Reversed Frame		
from 1/5A to 1/5B	18		Vertical Stems		
Collision bulkhead	22 1/2				
in peaks	22				
SIDE FRAMING.			Centre Girder, depth and thickness amidships	45 1/2 x 38	
Frame Amidships, Angle E or F	7 3 33		top Angles	3 1/2 3 1/2 3 1/2	Del
in Way of Transverses	9 3 1/2 38		bottom Angles	3 1/2 3 1/2 38	
Extends up to	upper Deck		Side Girders, No. each side and thickness	One 28	
Reversed Frame Amidships, Angle			Margin Plate depth (excl. of flange) and thickness		
Extends up to			Vertical Angle to Tank side		
Depth of Framing Girder			Bracket abaft 1/4 len. from stem		
Frames in Uppermost Continuous tween Decks, Angle E or F			Vertical Angle to Tank side		
Second tween Decks, Angle E or F			Bracket from forward 1/4 len. from stem to Panting Area		
Third			Gussets, spacing and scantling abaft 1/4 len. from stem		
from 1/5A to 1/5B	7 3 40		Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area		
in Peaks, Angle E or F	5 3 35		Tank Side Brackets, height above base line at toe of Frame and thickness	5'3" 30 ft.	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	3/4 dia @ 4 1/2"		INNER BOTTOM PLATING, in Engine Space		
State if Frame Joggled	Yes		Breadth and thickness of Middle Line Strake	96 x 75	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes		Thickness of remainder in Holds	34	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes		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	
SINGLE BOTTOM, in Boiler Space			BEAMS.		
Floors, Depth and thickness at mid-line in Holds	24 x 40		Uppermost Continuous Deck, amidships		
Height of Brackets at side above base line at toe of frame	None		in Wells, Angle E or F		
Middle Line Keelson, on Floors, Angles, E or F	4 4 42 Del.		in way of Bridge, Angle, E or F	5 3 32	
Through Plate or Intercoastal Plate	48		Spacing	Ev. frame	
Foundation Plate on Floors	12 x 48		Second Deck, amidships, Angle, E or F		
Flat Plate Keel Angles	3 1/2 3 1/2 42 Del.		Spacing		
Side Keelsons, No. each side	One		Third Deck, amidships, Angle, E or F		
thickness of Intercoastal Plate	40		Spacing		
Angles	4 4 42 Del.		Fourth Deck, amidships, Angle, E or F		
DOUBLE BOTTOM, in Engine Space			Spacing		
Solid Floors, thickness and spacing	28 Ev. p.		Poop Deck, Angle, E or F	5 3 28	
Are Frame and Reversed Frame joggled?	Yes		Spacing	Ev. frame	
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	5 3 32	
			Spacing	Ev. frame	

PILLARS AND DECKS.

	INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.
PILLARS, No. of Rows.....	<i>Centre Line</i>					<i>Stringer Plate, breadth and thickness in way of Bridge</i>			
„ in 'tween Decks, Size and Spacing.....	<i>Bulkhead</i>					<i>Thickness of Plating abreast Deck openings in way of Wells</i>			
„ „ „ „ „	<i>in Cargo tanks, O.F. Bulkhead, Coffers and Pump Room</i>			✓		<i>Thickness of Plating abreast Deck openings in way of Bridge</i>			
„ in Holds „ „						<i>Thickness of Plating within line of openings...</i>			
„ „ „ „ „						<i>If Sheathed, material and thickness</i>			
Centre Line Bulkhead.						Third Deck.			
Stiffeners and Spacing.....	<i>9 3 1/2 38 3/4</i>			✓		<i>Stringer Plate, breadth and thickness.....</i>			
Plating, thickness of	<i>10 3 1/2 40 1/2 in No. 1 Tank 35 & 30</i>			<i>On every frame</i>		<i>If Plated, state thickness.....</i>			
STRINGERS AND DECKS.						Fourth Deck.			
Uppermost Continuous Deck.						<i>Stringer Plate, breadth and thickness.....</i>			
Stringer Plate, breadth and thickness in Wells.....	<i>54 1/2 40</i>					<i>If Plated, state thickness.....</i>			
„ „ „ „ in way of Bridge.....	<i>34 48</i>			<i>abreast Boiler</i>		Poop Deck.			
„ Angle in Wells	<i>5 5 40</i>					<i>Stringer Plate, breadth and thickness</i>			<i>69 30 25</i>
Thickness of Plating abreast Deck openings in way of Wells	<i>35</i>					<i>Plating, Sheathing, material and thickness ..</i>			<i>25 Composition in Accordance</i>
Thickness of Plating abreast Deck openings in way of Bridge.....	<i>25</i>					Bridge Deck, Trunk Top			
Thickness of Plating within line of openings...	<i>25</i>					<i>Stringer Plate, breadth and thickness.....</i>			<i>65 35</i>
If Sheathed, material and thickness	<i>1/2 Composition in Poop Accom.</i>					<i>Plating, Sheathing, material and thickness ..</i>			<i>35 & 40</i>
Second Deck.						Forecastle Deck.			
Stringer Plate, breadth and thickness in Wells..						<i>Stringer Plate, breadth and thickness.....</i>			<i>30</i>
						<i>Plating, Sheathing, material and thickness ..</i>			<i>30</i>

SHELL PLATING.

SCANTLINGS.						RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES <i>Top</i>		BUTTS.					
	AMIDSHIPS.		FORWARD.	AFT.		State if joggled?	SINGLE OR DOUBLE.	RIVETS.		No. of Rows of Rivets.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
FLAT PLATE KEEL	<i>54</i>	<i>55</i>	<i>51</i>	<i>51</i>	<i>approved 1/4 inch</i>	<i>Double</i>	<i>1/8</i>	<i>3-2</i>	<i>3</i>	<i>3/8</i>	<i>3/8</i>	<i>Lapped</i>	
„ <i>Belg. (if any)</i>													
BOTTOM PLATING, No. of Strakes.....	<i>7 1/2</i>	<i>40</i>	<i>A 44</i>	<i>37 on Post</i>		<i>Double</i>	<i>3/4</i>	<i>2.5 in all</i>	<i>3-2</i>	<i>3/4</i>	<i>2 1/2</i>		
BILGE PLATING, No. of Strakes.....	<i>6 1/2</i>	<i>40</i>	<i>37</i>	<i>33</i>		<i>Double-Single</i>	<i>"</i>	<i>"</i>	<i>3-2</i>	<i>"</i>	<i>"</i>		
SIDE PLATING, No. of Strakes.....													
UPPER DECK, Sheer-strake in Wells.....	<i>48</i>	<i>40</i>	<i>37</i>						<i>3-2</i>				
UPPER DECK, Sheer-strake in Bridge.....	<i>84</i>	<i>60 @ Poop front</i>	<i>40-33</i>			<i>Single</i>	<i>"</i>	<i>3-2-3</i>	<i>"</i>		<i>3/8 at poop front</i>		
STRAKE BELOW Sheer-strake in Wells.....	<i>6 1/2</i>	<i>40</i>	<i>37</i>			<i>Double-Single</i>	<i>"</i>	<i>2.5 in all</i>	<i>3 clear of all</i>	<i>"</i>	<i>"</i>		
STRAKE BELOW Sheer-strake in Bridge.....	<i>6 1/2</i>	<i>40</i>	<i>33</i>			<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		
POOP SIDE PLATING.....			<i>38-25</i>						<i>2-1</i>	<i>"</i>	<i>"</i>		
BRIDGE SIDE PLATING.....													
FORECASTLE SIDE PLATING.....			<i>25</i>			<i>Single</i>	<i>3/4</i>	<i>3</i>	<i>1</i>	<i>"</i>	<i>"</i>		

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—	<i>9</i>
Extending to Upper Deck (Sec. 3 c)	<i>6</i>
„ „ „ Deck next below	<i>3</i>
As per Rule	<i>approved</i>

FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar	<i>Roller Steel</i>	<i>6 1/2 x 13</i>		
STEM				
STERN FRAME { Propeller Post	<i>Forging</i>	<i>6 1/2 x 4</i>	<i>T.S. FORSTER & SONS LTD.</i>	
{ Rudder	<i>"</i>	<i>5 1/2 x 4</i>		
Speed of Vessel	<i>Under 12 K.</i>			
RUDDER—Type	<i>Ordinary</i>			
„ A x D	<i>91-59</i>			
„ Diam. of head	<i>Forging</i>	<i>5 1/2</i>	<i>T.S. FORSTER & SONS LTD.</i>	
„ Mainpiece at top pintle	<i>Forging</i>	<i>5 1/2 F.A.</i>	<i>"</i>	
„ „ „ heel	<i>5 1/2 in diam.</i>			
„ how constructed	<i>main piece & arms forged in one piece</i>			
„ double or single plate	<i>Double</i>			
„ coupling, vertical or horizontal	<i>Vertical</i>			

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD, Upper 'tween decks					
„ „ „ Second „					
„ „ „ Third „					
„ „ „ Holds	<i>35</i>	<i>9 3 1/2 38 3/4</i>	<i>28 1/2</i>	<i>Under at upper 16 3/4 35 fl 4</i>	<i>Ok level</i>
COLLISION „ (in Hold)	<i>40-30</i>	<i>1 3/4 38 3/4</i>	<i>24</i>	<i>Deep tank</i>	<i>Flat</i>
AFTER PEAK „ „	<i>42-30</i>	<i>8 3/4 38 3/4</i>	<i>24</i>	<i>Noel</i>	

STEEL.	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)	<i>Open Hearth</i>
	<i>Steel Co of Scotland, Colvilles Ltd. Dorman Long & Co Ltd.</i>	
	Has the Steel been tested as required by the Rules?	<i>yes</i>

EQUIPMENT No. 9392				LETTER K				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.	Cwts.				
40915	1st Bower ...	19	0	0	Stockless			19	19	2	0	19	Stockless	Byers Imp. Stockless	W.H. Byers & Co.	Sunderland 13-6-41 W.V. Norman
40969	2nd " ...	19	0	0	"			19	17	2	0	19	"	" " "	" " "	" 3-7-41 " "
	3rd " ...											16 1/2	"			
	Collective weight.											54 1/2	"			
54319	Stream	5	1	16	1	1	19	7	14	0	7	5 1/2 or Stock	Ordinary			Cradley Heath 2-8-41 L.C. Paul

[illegible]

Steering Gear, Type (Power ~~or~~ hand) *Hastings Steam Telemotor* Alternative Means of Steering *Blocks and tackle led to Steam Capstan on poop*

Steering Chains (Size and Test)..... ✓ Windlass Emerson Walker - Steam Boats 2-19-10 Lifeboats

Ceiling in Holds, thickness and material *None* Cargo Battens, thickness, material and spacing *None*
 Cargo Hatchways.—(Upper Deck) *Transit top Bulk angle Coaming* Thickness of Hatches *Steel hinges Covers*

Size of Hatchways No. 1 (Fwd.) *old 39 x 5-0* No. 2 *Fwd. Coff. 2-0 x 2-0* No. 3 *Main oil Tank 3(P) 2-6 x 2-6* No. 4 No. 5 No. 6

Number of **Shifting Beams** } *None*
and/or **Fore and Afters** }

Builder's Signature

BLYTHWOOD SHIPBUILDING CO. LTD.

John W Stewart

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 Yes
(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo ✓ 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).

This Vessel has been built in accordance With the approved plans, the Secretary's letters of various dates and in general conformity With the Society's Rules for the Class Contemplated. The Workmanship and Materials are good.

The Cargo oil tanks, Oil fuel Bunkers, stilling tank, aft Cofferdam, fwd. Cofferdam (pump room) Fore peak tank, after peak tank, forward deep tank and double bottom tank in engine room were tested as required by the Rules and found satisfactory

Weather decks here tested and found satisfactory

Freeboard Verified and Marks Cut in

Steering Gear and Windlass tried under Working Conditions and found Satisfactory

Oil fuel is carried in oil fuel bunkers and settling tanks at forward end of boiler space.

Flesh point above 150°F. See 20 of the Rules Complied With Where applicable

Chairs and Cables in accordance With War Emergency Requirements

Amount of Entry Fee £	4	:	0	:	0	Fees applied for, 30 DEC 1941 Received by me, _____ 19____
Special Survey Fee £	121	:	19	:	0	
<i>Conversion of Specifications</i>	30	:	9	:	9	
Travelling Expenses, if any £	:	:	:	:	:	

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

I am of opinion the Vessel should be Classed + 100 A-1 Carrying Petroleum in bulk - special notation "Longitudinal framing at bottom and at deck"

Signature

H. Dickens

Surveyor to Lloyd's Register of Shipping.

State whether the Vessel has been built under Special Survey Yes

Certificate to be sent to **GLASGOW** Date of issue **29/1/42**

Committee's Minute GLASGOW 30 DEC 1941

Character assigned $\frac{1}{2}$ - 100 A1 $\frac{1}{2}$ - Linc 12.41

12.41

Carrying Petroleum in Buck

Longitudinal Framing at Bottom & at Deck

Lloyd A. O. C. S.

Note. Capt.

Fitted for oil fuel 12.41 I.P. above 1500F

PARTICULARS OF LONGITUDINAL FRAMING.

FRAMING.		AMIDSHIPS.			ENDS.			Any Departure from Approved Plans to be Noted.	RIVETING.					
		In Ship.			In Ship.				Rivets in Longitudinal Frames.		Spacing of Rivets on each side of Transverses and Bulkheads.	Rivets in Brackets to Bulkheads.		
		Ins.	Ins.	Ins.	Ins.	Ins.	Ins.		Diam.	Speng.		Number.	Diameter.	
Framing of \angle , L or Σ														
Frames in Bridge between Decks ...														
Frames from Uppermost Continuous Deck No. 1		10	3½	40	10	3½	40	3½ x 3½ x 3/8 fore and aft	3½	4½	3/8 for 8 Rivets	12	7/8	
" 2		"	"	"	"	"	"	intercostal angles E.W	"	"	" " " "	"	"	
" 3		"	"	"	"	"	"	to bottom fitted between	"	"	" " " "	"	"	
" 4		"	"	"	"	"	"	bottom Longitudinals	"	"	" " " "	"	"	
" 5								1(P) 3(S) (on flat of	"	"	" " " "	"	"	
" 6								bottom) as required by	"	"	" " " "	"	"	
" 7								Munsty of Shipping.			" " " "	"	"	
" 8											" " " "	"	"	
" 9											" " " "	"	"	
" 10											" " " "	"	"	
" 11											" " " "	"	"	
" 12											" " " "	"	"	
" 13											" " " "	"	"	
" 14											" " " "	"	"	
" 15											" " " "	"	"	
" 16											" " " "	"	"	
Spacing of Longitudinal Frames														
Amidships		28½												
At Ends					28½									
Double Bottoms														
L or E														
Spacing of Longitudinals														
Amidships														
At Ends														
Transverses.														
Side (in between Decks)														
Depth and Thickness														
Face Angles														
Lugs to Shell														
Side (in Hold)														
Depth and Thickness														
Face Angles														
Lugs to Shell														
Bottom														
Depth and Thickness		29	40		29	40								
Face Angles		5"			5"									
Lugs to Shell		6	6	36	6	6	36	5+5						
Back Bars														
Brackets		35 flange 4"			35 flange 4"									
Spacing of Transverse Frames		9 4½ x 7-6			9 4½ x 7-6									
State if joggled or liners.		joggled			2 1/2" in N°1 Tank.									
Longitudinal Beams of \angle L or Σ														
Trunk Top Bridge Deck		7	3	33	7	3	33							
Upper		"	"	"	"	"	"							
Second														
Third														

The particulars of framing in peaks (if ordinary), Floors, Centre Girder, Side Girders and Margin Plate and their angle attachments, etc., to be entered in their respective places provided for on the Report Forms.

NOTE:—This slip to be pasted on the fourth page of the Report, and reference to same to be made under framing, etc., on the first page.

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.)

The following approved plans are forwarded with this report

Plan of Midship Section as built forwarded in advance

- ✓ Keel Centre Girders and bottom Shell
- ✓ Midship Section and Profile & decks
- ✓ Rudder and Stemframe
- ✓ Oil Bunkers Bhdos and Forward Coff. Bhdos
- ✓ Shell in Way of Poop break
- ✓ After and framing
- ✓ Riveting list
- ✓ Fore and framing
- ✓ Framing in Way of No. 1 Tank & Oil Bunkers
- ✓ End Connections of Stringers
- ✓ Casings, Sheathing pillars & Girders
- ✓ Reservoirs for Sea inlets
- ✓ Pump Seats
- ✓ Emergency Steering Gear

The following Forging Reports are enclosed

Rudder
Stemframe
Tiller
Quadrant

This vessel is ^{generally} similar to the S.S. EMARE LASS Fremington Dockyard Co's No. 435 Glasgow Report No. 6494

PARTICULARS OF ELECTRIC WELDING (if employed) Fore and aft intercostal angles on flat of bottom and minor details

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Longitudinal framing at bottom and at deck. Lloyd's A.C.P., Machy Off

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	12.2.23	J.T.	3585	25.11.40
	2nd "	12.3.5	J.T.	3588	25.11.40
	3rd "				

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 65.82 ft., Trunk 101.6 ft., Bridge 22.1 ft., Forecastle 22.1 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

Official No. 168902 Signal Letters Extreme Breadth over Belting 30'-10" Over-all Length 202'-3" (Circ. 1611) (Circ. 1703)

No. and Material of Decks 1 Steel

Parts of Bottom of Vessel coated with cement or approved composition Peaks, D.B in Engine Space, Boiler Room, Pump Room, Deep tank forward.

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.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,			Fore peak tank,	13.2	15.4
Double bottom, under Engines and Boilers,			After peak tank,	13.3	25.4
Double bottom, if under Engines only,	20.6	27	Deep tank, aft,	16.1	42.6
Double bottom, if under Boilers only,			Deep tank, forward,	3.0	14.0
Double bottom, forward,			Other tanks, if fitted, after Cofferdam		
Total length (if continuous) and Capacity	20.6	27	(If necessary, furnish further information by sketch.)		

Order for Special Survey No. 6558 Date 31.10.40

Dates of Surveys held while building

1940 Oct.: 9 Nov.: 25 Dec.: 3.14.23 (1941) Jan.: 9.13.20.23.24.28 Feb.: 25 Mar.: 6.13.27 Apr.: 1.15.17.21.29 May: 1.9.12.27.30 June: 3.4.5.11.12.17.23.30 July: 15.22.25.28 Aug.: 6.12.13.21.26.27.28 Sep.: 2.4.8.11.16.26 Oct.: 2.3.8.9.13.15.16.17.19.20.21.22.23 Nov.: 3.7.19.23.27 Dec.: 5.7.10.11.12.22

Total No. of Visits 74