

State if Report is sent on the Machinery of the Vessel. YES

Date of completion of report 25TH AUGUST, 1950. Port of GREENOCK. No. 24194

Survey held at PORT GLASGOW Date First Survey 29th MARCH 1949 Last Survey 26th JULY 1950

On the (State if Machinery fitted Aft and
(if Single, Twin or Triple Screw) SINGLE SCREW MOTORSHIP "ERLING BORTHEN" MACHINERY AFT

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings).....FULL SCANTLING TANKER. State Type of Erections POOR BRIDGE & E/CLE.

CLASS ✠ 100 B.1

State if with freeboard
as condition of Class

Built at PORT GLASGOW

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

FEET
474.0

Launched **2ND MAY 1950** Yard No. **482.**

Total.....

Breadth (greatest moulded)

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

B 62.0

Builders **H M HAMILTON & CO L^{rs}**

Gross Tonnage 9073.86

1st Longitudinal Number (L × D).....=

6567

Owners HARRY BORTHEN & CO

Register Tonnage 5215.74

2nd Numeral $L \times (B + D)$ =

45707

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

REGISTERED DIMENSIONS.

FEET

Length 480.9

Breadth 62.2

Depth **35.2.**

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

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

Do. Long Bridge to }
top of keel }

Draught Moulded

Residence 0540Port of Registry OSLO

If surveyed while building, afloat, or in dry dock

BUILDING AFLOAT & DRYDOCK (UNDOCKED 22-7-50).

FRAMES, DOUBLE BOTTOM AND BEAMS.

~~NORWEGIAN~~
Jan, 9, 49. T

PILLARS AND DECKS.

PILLARS, No. of Rows	INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.			INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
in 'tween Decks, Size and Spacing	AT ENDS AND						
" " " " " "	IN BRIDGE AS						
in Holds	APPROVED.						
LONGITUDINAL Gentle Line Bulkhead. Stiffeners and Spacing	10 x 4 x .475 O.A. WELDED TO DECK SPACED 30" WITH 2 STRINGERS.						
Plating, thickness of	UPPER 30" x 40" WITH 5" x 48" FACE PLAT LOWER 30" x 40" WITH 5" x 42" FACE PLAT. PLATING. 48" CORNING. 38" VERTICAL.						
STRINGERS AND DECKS. Uppermost Continuous Deck. Stringer Plate, breadth and thickness in Wells	91 x .80						
" " " " " " in way of Bridge	ENDS .96 POOP END. .90						
" Angle in Wells	7 7 .72						
Thickness of Plating abreast Deck opening in way of Wells	3 STRAKES .60 IN WAY OF HATCHES. REMAINDER .60						
Thickness of Plating abreast Deck opening in way of Bridge	.76 .60						
Thickness of Plating within line of openings							
If Sheathed, material and thickness	NOT SHEATHED.						
Second Deck. IN WAY OF ENGINE ROOM Stringer Plate, breadth and thickness in Wells	.40 .50 UNDER BOILERS.						
Stringer Plate, breadth and thickness in way of Bridge							
Thickness of Plating abreast Deck opening in way of Wells							
Thickness of Plating abreast Deck opening in way of Bridge							
Thickness of Plating within line of openings							
If Sheathed, material and thickness							
Third Deck. 6.7. FART FOR							
Stringer Plate, breadth and thickness	.38						
If Plated, state thickness	.38						
Fourth Deck. Stringer Plate, breadth and thickness							
If Plated, state thickness							
Poop Deck. Stringer Plate, breadth and thickness	.38						
Plating, Sheathing, material and thickness	.40-130 2 1/2 O.P. WHERE EXPOSED.						
Bridge Deck. Stringer Plate, breadth and thickness	.38 x .44						
Plating, Sheathing, material and thickness	.34 .35						
Forecastle Deck. Stringer Plate, breadth and thickness	.38						
Plating, Sheathing, material and thickness	.50 UNDER WINDLASS. .36 NOT SHEATHED.						

SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	TOP EDGES.			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		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.	
	Inches.	Inches.	Inches.	Inches.		Inches.	Inches.		Inches.	Inches.		
Flat Plate Keel.....	84 ✓	.90 ✓	.80 ✓	.80 ✓		DOUBLE ✓	1 ✓	3 3/4 ✓				
„ Dblg. (if any)	3 STRAKES OF BOTTOM PLATING.				{ .72" FOR 1/2 LENGTH TO 2/3 LENGTH. .75 & .78" FOR 2/3 LENGTH TO COLLISION BULKHEAD.							
Bottom Plating, No. of Strakes 3 }		.66 ✓	.52 ✓	.52 ✓		DOUBLE ✓	7/8 ✓	3 1/2 ✓				
Bilge Plating, No. of Strakes 1 }		.66 ✓	.52 ✓	.52 ✓		" ✓	" ✓	" ✓				
Side Plating, No. of Strakes 4 }		.64 ✓	.48 ✓	.48 ✓		" ✓	" ✓	" ✓				
Upper Deck, Sheer- strake in Wells.....	72 ✓	1.03 ✓	.48 ✓	.48 ✓	.94 - .48	—————						
Upper Deck, Sheer- strake in Bridge ...	INCREASED TO 120" AT POOP & BRIDGE BREAKS.											
Strake below Sheer- strake in Wells.....	72 ✓	.82 ✓	.48 ✓	.48 ✓	.78 - .48	DOUBLE ✓	1 ✓	3 3/4 ✓				
Strake below Sheer- strake in Bridge ...												
Poop Side Plating.....			.44 ✓			SINGLE ✓	7/8 ✓	3 1/2 ✓				
Bridge Side Plating.....		.44 ✓				" ✓	" ✓	" ✓				
Forecastle Side Plating			.44 ✓			" ✓	" ✓	" ✓				

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—		13			
Extending to Upper Deck (Sec. 3 c).....		13 ✓			
Deck next below		-			
As per Rule.....		AS APPROVED.			
	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKH'D, Upper 'tween decks					
" " Second	" "				
" " Third	" "				
" " Holds	" "	10 x 4 x .475 ✓ WELDED TO DECK	30" ✓	2 GIRDS AS AS APPROVED.	✓
COLLISION	" (in Hold)	.63" / .36 7 x 3 x .44 W.T. 6 x 3 x .30 O.	24" ✓	4 SEMI-BOX BEAMS.	✓
AFTER PEAK	" "	.48" / .31" WELDED TO DECK	24" ✓	2 1/2" DECK & SIDE STAINERS.	✓

FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar	LOWER ROLLED	10 1/2 x 2 1/4		
STEM	UPPER	.60 - .50		
STERN FRAME	Propeller Post	CASTING SEE PLAN	STROMMANS YAKSTED.	
	Rudder	NO RUDDER POST.		
Speed of Vessel		14 KNOTS.		
RUDDER-Type		BALANCED.		
" A x D.		-		
" Diam. of head	CASTING	12" DIA.	STROMMANS YAKSTED.	
" Mainpiece at top pintle		SEE PLAN		
" " heel		PLAN		
" how constructed		COMPLETE CAST STEEL FRAME		
" double or single plate coupling, vertical or horizontal		.62		

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture). OPEN HEARTH.
COLVILLE L.D. STEEL CO OF SCOTLAND. LANARKSHIRE.

Has the Steel been tested as required by the Rules? YES.

Lloyd's Register Foundation

Departure from
Plans to
be Noted.

EQUIPMENT No. 47660										LETTER dt		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.				
30434	1st Bower	82	0	7	STOCKLESS			60	0	0	81 1/4	BYEAS IMPROVED.	NOT STATED.	LOW WALKER 29-11-49 R.E.Y.
30433	2nd "	81	2	0	"			59	10	0	81 1/4	"	"	"
30401	3rd "	70	3	0	"			54	5	0	69 1/2	"	"	"
	Collective weight	234	1	7							232			16-11-49 "
4603	Stream	84	3	0	6	1	14	84	10	2	23 1/2	RODDERS.	TAYLOR & SONS	NETHE 19-9-49 N.Y.N.
CHAIN CABLES														

CHAIN CABLES.										HAWSERS AND WARPS.									
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.				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 and size supplied.	Length and size per Table 53.
	Length.	Diam.	Stat.	Break.	Supplied.	Per Rule.	Length.	Diam.					Length.	Ins.		Length.	Ins.		
12418	300 3/4	2 1/8	120	6	701-0-14	710-8	300	2 1/8	TAYCO	TAYLOR & SONS	NETHE 19-9-49 N.Y.N.	TOWLINE	130	5 1/2	84.4	130	5 1/2		
12179	TWO ADAPTOR PIECES EACH CONSISTING OF THREE LINKS.																		
13100	TWO JOINING SHACKLES (LUGLESS)																		
Iron Stream Chain or Steel Wire	120	1 1/4			64.6			120	1 1/4				4-100	2 1/4	15.2	4-100	2 1/4		

Steering Gear, Type (Power or hand) ELECTRIC HYDRAULIC BY HASTIA & CO ✓ Alternative Means of Steering BLOCKS & TACKLE LED TO WINCH. ✓
Steering Chains (Size and Test) TELE MOTOR CONTROL. ✓ Windlass BY CLARKE CHAPMAN & CO ✓ Boats 4-24'0" LIFEBOATS. ✓
Ceiling in Holds, thickness and material NONE ✓ Cargo Battens, thickness, material and spacing NONE. ✓
Cargo Hatchways.—(Upper Deck) STEEL CORNING 30" HIGH & 50" THICK. ✓ Thickness of Hatches STEEL HINGED COVERS. 50" x 40" ✓
Size of Hatchways No. 1 (Fwd.) 9'0" x 15'0" No. 2 26'0" HATCHES. No. 3 _____ No. 4 _____ No. 5 _____ No. 6 _____
Number of Shifting Beams and/or Fore and Afters } NONE. ✓

Builder's Signature Wm. Hamilton & Co., Ltd.
James Hall - Secretary.

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 MOTORSHIP. ✓
(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).

This ship has been built under special survey in conformity with the Society's Rules & Regulations and the Secretary's letters. The scantlings arrangements of the ship are as given in the report as shown and amended on the approved plans now forwarded. All modifications or additions to the original approved arrangements made during construction have been indicated on the plans & have been approved as being in accordance with, or by standards equivalent to, the Rule requirements. The plans of midship section & profile & decks showing the ship as built, now forwarded herewith, have been checked with the approved arrangements found in order. The materials & workmanship are of good quality. All the double bottom tanks, fore & after peak tanks, cargo oil tanks, oil fuel bunkers, forward deep tank, fresh water tank & cofferdams have been tested to Rule requirements & found satisfactory. The weather decks & w.t. bulkheads have been hose tested & found satisfactory. Bilge suction, hand pumps, windlass, steering gear, auxiliary steering gear have been tried & found efficient. Deckboard verified P.T.O.

The amount of Entry Fee..... £ : : Fees applied for,
Special Survey Fee..... £1264 0 0 26th August 1950.
FREEBOARD 36 0 0 Received by me,
Travelling Expenses, if any £ : : 19

(Special notations, where part of class, to be stated.)
CARRYING PETROLEUM IN BULK.
LONGITUDINAL FRAMING AT BOTTOM & AT DECK.
I am of opinion the Vessel should be Classed +100 A.1.

State whether the Vessel has been built under Special Survey YES.

Certificate to be sent to GREENOCK OFFICE.

Date of issue 5/10/50.

Signature J.A. Jameson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 30 AUG 1950

Character assigned +100 A.1.
7.50 P.9L.

Carrying Petroleum in bulk

Lloyd's A.C.P.

Longitudinal framing at bottom & at deck

+ LMC 7.50 Oil Engine

2 D.B. - 150 lb.

Lloyd's Register
Foundation

Rpt. 1st.

"ERLING BORTHEN"
PARTICULARS OF LONGITUDINAL FRAMING.

FRAMING.			AMIDSHIPS.			ENDS.			Any Departure from Approved Plans to be Noted.		RIVETING.	
			In Ship.			In Ship.					Rivets in Longitudinal Frames.	
			Ins.	Ins.	Ins.	Ins.	Ins.	Ins.			Diam. Speng.	
											Inches.	
											Number. Diameter.	
											Inches.	
Framing of L, T or C												
Frames in Bridge 'tween Decks ...			6 3/2 .40 A.			17x4x4x.49/68			ENDS OF LONGITUDINALS WELDED, AS		7/8 5	
Frames from Uppermost Continuous Deck KEEL.			No. 1			17x4x4x.49/68			APPROVED, IN LIEU OF BACK BARS		WELDED.	
" 2			"			"					WELDED.	
" 3			"			"					"	
" 4			"			"					"	
" 5			LONGITUDINAL			BULKHEAD.					"	
" 6			17x4x4x.49/68			TRANSVERSE			7/8 5		WELDED	
" 7			"			FRAMING					"	
" 8			"			IN END NING					"	
" 9			"			TANKS.					"	
" 10			"								"	
CENTRE GIRDER IN			"								"	
CARGO TANKS.			"								"	
PLATE			41 x .42			41 x .42			INTERCOSTAL BETWEEN TRANSVERSES.		"	
TOP ANGLES			3 1/2 3 1/2 .44 DBL			3 1/2 3 1/2 .44 DBL			" " "		"	
BOTTOM ANGLES			4 4 .50 DBL			4 4 .50 DBL			" " BULKHEADS.		"	
" 10											"	
Spacing of Longitudinal Frames			Amidships			CENTRE TANKS 30"						
			At Ends			—						
ble (Tank Top Longitudinals												
oms (Bottom												
or C " "												
ng of Longitudinals (Amidships												
			At ends...									
Transverses.												
Side (Depth and Thickness												
ween Decks) Face Angles												
Lugs to Shell*												
2M. (Depth and Thickness			41 x .44			41 x .44			FORMING 42" GIRDER.		WELDED TO SHELL.	
Hold) Face Angles FLATS			14 x 1.00			14 x 1.00						
TANKS Lugs to Shell*			WELDED			WELDED						
(Depth and Thickness			37 x .44			37 x .44			FORMING 37.66 GIRDER.			
Face Angles FLATS			8 x .66			8 x .66						
TANKS Lugs to Shell*			WELDED			WELDED						
Bottom " " Back Bars												
Brackets			48x.44 TO FRAMES.			48x.44 NAB TO LONG. END.			69x.44 AT SIDES OF C TANK TRANSVERSES.			
Spacing of Transverse Frames...			CENTRE SPAN 10'0"			END. SPAN 12'6"						
* State if joggled or liners.												
Longitudinal			Bridge Deck			4 3 .34			WELDED TOE ON		33	
ams of			Upper			9 3 1/2 .42			WELDED TOE ON		30	
E or E			Second									
			Third									
Transverse Beams.			Plate.			Face Angles.			Any departure from Approved Plans to be Noted.			
			12 x 3 1/2 x 3 1/2 x .40/50 CHANNEL.									
			30x.42 8x.56 FLAT BAR.									

The particulars of framing in peaks (if ordinary), Floors, Centre Girder, Side Girders and Margin Plate and their angle attachments, &c., 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, &c., 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.)

verified/ remarks cut in on the ship's sides.
oil fuel R.P. above 150°F is carried in cross tanks, forward deep tank in double bottom tank at forward end of machinery space. The requirements of Sec. 20 of the Rules where applicable have been complied with.

Plans of midship section Profile Decks (as built) approved plans forgoing reports are forwarded herewith.

Interim certificate issued at request of Builders. Copy attached.

Sister vessel to m.v. "Andrea Morrig" Greenock 1st Entry Report No. 23735
"Cis Morrig" " " " 23755
"Berglist" " " " 23880
"Norabo" " " " 24026

PARTICULARS OF ELECTRIC WELDING (if employed) ALL BUTTS OF SHELL & DECK PLATING. LONGITUDINAL & TRANSVERSE BULKHEADS, STIFFENERS TO BULKHEADS, ENGINE SEATING, SIDE STRINGERS TO SHELL & BULKHEADS, BOSS PLATE, SIDE STRINGER & BULKHEAD BRACKETS, LONGITUDINALS TO DECK, BRIDGE DECK PLATING, TRANSVERSES TO SHELL, BULKHEADS & CENTRE GIRDER.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book
CARRYING PETROLEUM IN BULK, LONGITUDINAL FRAMING AT BOTTOM & AT DECK.
LLOYD'S R.C.P. R.S.D. DE. G.Y.C.C. RADAR, CRUISER STERN, MACHINERY AFT, OIL ENGINE, PART ELECTRIC WELDED.

RADAR Equipment (State if fitted) YES
State Type or Pattern No. 665602
State } Maker SPERRY
Name } and/or
of } Supplier

Particulars of Drop Test of Cast Steel Anchors viz.:—
Weight, Surveyor's Initials, Number of Certificate, Date of Test.
1st Bower 51-2-14 A.E.G. 1132 13-9-49
2nd " 52-0-7 A.E.G. 1158 16-9-49
3rd " 44-2-14 A.E.G. 3119 20-10-49

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 97.3 ft., R.Q.D. — ft., Bridge 40.0 ft., Forecastle 49.0 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated.

Official No. — Signal Letters LACU Extreme Breadth over Belting — Over-all Length 505.0 (Circ. 1611) (Circ. 1703)
No. and Material of Decks 1 DECK (STEEL)

Parts of Bottom of Vessel coated with cement or approved composition FORE & AFT PEAK TANKS CEMENTED

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.	S.W. Water Capacity. Tons.	Where Fitted.	Length. Feet.	S.W. Water Capacity. Tons.
Double bottom, aft,			Fore peak tank,		
Double bottom, under Engines and Boilers,			After peak tank,		<u>143</u>
Double bottom, if under Engines only,	<u>76.25</u>	<u>182.4</u>	Deep tank, aft,		<u>86</u>
Double bottom, if under Boilers only,			Deep tank, forward,	<u>33.75</u>	<u>810</u>
Double bottom, forward,			Other tanks, if fitted,		
Total length (if continuous) and Capacity			(If necessary furnish further information by sketch.)		

Order for Special Survey No. —

Date —

Dates of Surveys held while building

(1949) MAR. 29-31 APR. 5-7 14-19 22-26 MAY 3-11 13-19 20-24 JUNE 2-3 9-14 17-23 29 JULY 1-19 25 AUG. 1-9 10-16 22-30 SEPT. 2-8 12-15 20-23 27-29 OCT. 5-10 14-21 26-28 NOV. 1-2 4-9 15-21 23-28 30 DEC. 5-7 12-22 28-30 (1950) JAN. 6-10 11-17 19 FEB. 2-9 12-16 20-23 28 MAR. 1-7 13-15 20-21 22-23 27-28 31 APRIL 4-7 10-11 12-13 14-18 19 20-21 23-24 26-27 28 MAY 2-11 JUNE 2-6 14-16 22-29 30 JULY 20-25-26

Total No. of Visits 110

S.S.O.F. not available when filed

