

# STEEL STEAMER ~~OR MOTORSHIP~~

Received at London Office

27 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 **18th December 1941**Port of **Hull**No. **51472**Survey held at **Aessale & Hull**Date First Survey **30.10.41**Last Survey **12th December 1941**

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

**Steel Single Screw Tug. "EMPIRE BIRCH"**

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

**Full Scantling**State Type of Erections **Flush Deck**TONNAGE under Tonnage Deck... **228.85**CLASS **100.A.1.****"FOR TOWING SERVICES"****"SEAGOING"**

State if with freeboard as condition of Class

No.

Built at **Aessale**

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

Length from fore part of stem to after part of stern } **L 105.0**

post on summer L.W.L. See Sec. 3 (1a)

Breadth (greatest moulded) **B 26.5**Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) **D 13.5**1st Longitudinal Number (L x D) **= 1417**2nd Numeral L x (B + D) **= 4200**Framing Depth "d," at middle of length. See Sec. 3 (1d) **4.44**Proportions—Depth to Length—Uppermost continuous deck to top of keel **4.44**Do. Long Bridge to top of keel **✓**Draught Moulded **12'-2 3/4"**Launched **9th August 1941** Yard No. **418**Builders **Messrs Henry Scott & Co. Ltd.**Owners **Ministry of Shipping**Managers **✓**

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

Residence **London**Port of Registry **Hull****✓** Surveyed while building, afloat, or in dry dock**Building and Afloat.**

## 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.
<b>FRAMES, Spacing amidships</b>	<b>21"</b> ✓		<b>Bracket Floors, Frame</b>	<b>✓</b>	
" " from 1/2 length amidships to Collision bulkhead	<b>22" IN BOILER SPACE</b> ✓		" " Reversed Frame	<b>✓</b>	
" " in peaks	<b>21"</b> ✓		" " Vertical Struts	<b>✓</b>	
<b>SIDE FRAMING.</b>			<b>Centre Girder, depth and thickness amidships</b>	<b>30"-24" x 44"</b> ✓	
Frame Amidships, Angle <b>E or F</b>	<b>5 x 3 x 30 BA</b> ✓		" " top Angles	<b>2 1/2 x 2 1/2 x 38 SINGLE</b> ✓	
" " Extends up to	<b>5 x 3 x 36 BA IN BUNKERS AND B.R.</b> ✓		" " bottom Angles	<b>3 x 3 x 42 SINGLE</b> ✓	
Reversed Frame Amidships, Angle	<b>2 1/2 x 2 1/2 x 36 DBH</b> ✓		<b>Side Girders, No. each side and thickness</b>	<b>✓</b>	
" " Extends up to	<b>ACROSS FLOORS</b> ✓		<b>Margin Plate depth (excl. of flange) and thickness</b>	<b>✓</b>	
Depth of Framing Girder	<b>5"</b> ✓		" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem	<b>✓</b>	
Frames in Uppermost Continuous 'tween Decks, Angle, <b>E or F</b>			" " Vertical Angle to Tank side Bracket from forward 1/4 len. from stem to Panting Area	<b>✓</b>	
" " Second 'tween Decks, Angle, <b>E or F</b>			" " Gussets, spacing and scantling abaft 1/4 len. from stem	<b>✓</b>	
" " Third " " "			" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area	<b>✓</b>	
" " from 1/4 len. for'd. to 15% len. from Stem			<b>Tank Side Brackets, height above base line at toe of Frame and thickness</b>	<b>✓</b>	
" " in Peaks, Angle <b>E or F</b>	<b>5 x 3 x 30 BA</b> ✓		<b>INNER BOTTOM PLATING.</b>		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	<b>5/8" - 4 1/2"</b> ✓		Breadth and thickness of Middle Line Strake	<b>58" x 42"</b> ✓	
State if Frame Joggled	<b>No.</b> ✓		Thickness of remainder in Holds	<b>44"</b> ✓	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	<b>TUG.</b> ✓		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?	<b>✓</b>	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	<b>TUG.</b> ✓		<b>BEAMS.</b>		
<b>SINGLE BOTTOM.</b>			Uppermost Continuous Deck, amidships in Way, Angle, <b>E or F</b>	<b>5 x 3 x 32"</b> ✓	
Floors, Depth and thickness at mid-line in Holds	<b>17" x 30" - 40" IN B.R.</b> ✓		" " in way of Bridge, Angle, <b>E or F</b>	<b>4 x 2 1/2 x 30 1/2 BEAMS</b> ✓	
Height of Brackets at side above base line at toe of frame	<b>✓</b>		Spacing	<b>21" AND 22"</b> ✓	
Middle Line Keelson, on Floors, Angles, <b>E or F</b>	<b>3 1/2 x 3 x 40 DOUBLE IN BOILER SPACE</b> ✓		Second Deck, amidships, Angle, <b>E or F</b>		
" " Through Plate <b>E or F</b>	<b>3 1/2 x 3 x 30 FORD</b> ✓		Spacing		
" " Intercoastal Plate	<b>42" IN BOILER SPACE</b> ✓		Third Deck, amidships, Angle, <b>E or F</b>		
" " Foundation Plate on Floors	<b>34" CLEAR OF BOILERS</b> ✓		Spacing		
" " Flat Plate Keel Angles	<b>12" x 42" EACH SIDE OF CENTRE LINE</b> ✓		Fourth Deck, amidships, Angle, <b>E or F</b>		
Side Keelsons, No. each side	<b>3 1/2 x 3 1/2 x 46 DOUBLE IN BOILER SPACE</b> ✓		Spacing		
" " thickness of Intercoastal Plate	<b>ONE</b> ✓		Poop Deck, Angle, <b>E or F</b>		
" " Angles	<b>5 x 4 x 38 FORD OF BOILER SPACE</b> ✓		Spacing		
<b>DOUBLE BOTTOM. 25-36 RESERVE FEED TANK.</b>	<b>5 x 4 x 48" IN BOILER SPACE</b> ✓		Bridge Deck, Angle, <b>E or F</b>		
Solid Floors, thickness and spacing	<b>36" 21-22 SPACING</b> ✓		Spacing		
" " Are Frame and Reversed Frame joggled?	<b>No</b> ✓		Forecastle Deck, Angle, <b>E or F</b>		
Bracket Floors, breadth and thickness at middle line	<b>✓</b>		Spacing		
" " breadth and thickness at margin plate	<b>✓</b>				



PILLARS AND DECKS.			
	INCHES IN SHIP. GALV.	Any Departure from Approved Plans to be Noted.	
<b>PILLARS, No. of Rows.....</b>			
" in 'tween Decks, Size and Spacing.....	23" DIA. PILLARS IN CONJUNCTION WITH FORE AND AFT GIRDERS, FITTED IN FORD & AFT ACCOM. see plans		
" " " " " "			
" in Holds " " " "			
" " " " " "			
<b>Centre Line Bulkhead.</b>			
Stiffeners and Spacing.....			
Plating, thickness of .....			
<b>STRINGERS AND DECKS.</b>			
<b>Uppermost Continuous Deck.</b>			
Stringer Plate, breadth and thickness.....	57" x 30"	✓	
" " " " in way of Bridge.....	✓		
" Angle in Wells .....	3" x 3" x 30"	✓	
Thickness of Plating abreast Deck openings) <del>in way of Wells</del> .....	28" - 26"	✓	
Thickness of Plating abreast Deck openings) in way of Bridge .....	✓		
Thickness of Plating within line of openings...	26"	✓	
If Sheathed, material and thickness .....	✓		
<b>Second Deck.</b>			
Stringer Plate, breadth and thickness in Wells...	✓		
Stringer Plate, breadth and thickness.....			
Plating, Sheathing, material and thickness .....			
<b>Third Deck.</b>			
Stringer Plate, breadth and thickness.....			
If Plated, state thickness.....			
<b>Fourth Deck.</b>			
Stringer Plate, breadth and thickness.....			
If Plated, state thickness .....			
<b>Poop Deck.</b>			
Stringer Plate, breadth and thickness .....			
Plating, Sheathing, material and thickness .....			
<b>Bridge Deck.</b>			
Stringer Plate, breadth and thickness.....			
Plating, Sheathing, material and thickness .....			
<b>Forecastle Deck.</b>			
Stringer Plate, breadth and thickness.....			
Plating, Sheathing, material and thickness .....			

SCANTLINGS.						RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged?		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	<i>OUT</i>	37½"	.42"	.40"	.40"		<i>Double</i>	¾"	6 RVS EX. FR. RV.	<i>Three for ½ L Two at ends</i>	¾"	2 5/8"	<i>STRAPPED 14¼" AND 9¾"</i>	
" DBLG. (if any)	✓	✓	✓	✓			<i>Single</i>	5/8"	7 RVS EX PR. RV.	<i>Two</i>	5/8"	2 ¼"	<i>LAPPED 4 1/4"</i>	
BOTTOM PLATING, No. of Strakes .....	<i>A</i>	49"	.32"	.32"	.32"		<i>Single</i>	5/8"	"	<i>Two</i>	5/8"	"	" "	
BILGE PLATING, No. of Strakes .....	<i>C</i>	50"	.32"	.28"	.28"		<i>Single</i>	5/8"	"	<i>Two</i>	5/8"	"	" "	
SIDE PLATING, No. of Strakes .....	<i>D</i>	50½"	.32"	.28"	.28"		<i>Single</i>	5/8"	"	<i>Two</i>	5/8"	"	" "	
UPPER DECK, Sheer-strake in Wells.....	<i>E</i>	51"	.34"	.30"	.30"		<i>Single</i>	5/8"	5 RVS EX PR. RVS.	<i>Two</i>	5/8"	"	<i>STRAPPED 8"</i>	
UPPER DECK, Sheer-strake in Bridge ...	✓						<i>X Seam connecting cheeks to keelwart</i>							
STRAKE BELOW Sheer-strake in Wells.....	✓													
STRAKE BELOW Sheer-strake in Bridge ...	✓													
POOP SIDE PLATING .....	✓													
BRIDGE SIDE PLATING ...	✓													
FORECASTLE SIDE PLATING	✓													

WATERTIGHT BULKHEADS.

**Total No. of W.T. BULKHEADS in Vessel—**

Extending to Upper Deck (Sec. 3 c)	(5)	4 BHs for record
„ Deck next below	✓	
As per Rule	3.	

	Casting or Forging.	Scandling.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar .....		FLAT PLATE	KEEL	✓
STEM .....		FLAT BAR ROLLED	6" x 1 1/2"	BY APPELY FRODDINGHAM STEEL CO.
STERN FRAME {	Propeller Post	MILD STEEL	5 1/2 x 3 1/4	MATERIAL BY APPELY FRODDINGHAM STEEL CO.
FRAME {	Rudder ..			STERN FRAME OF WELDED CONSTRUCTION BY H. SCARR & SIBBILDERS, AND ANNEALED BY T. FIRM & J. BROWN LTD, SHEPHERD.
Speed of Vessel .....		12 KNOTS		
RUDDER—Type.		ORDINARY DOUBLE PLATE		
" A x D	46 1/2 x 20 3/4	93 1/2		✓ MATERIAL BY SKINNING GROVE
" Diam. of head .....		MILD STEEL	5 1/2 DIA	IRON & STEEL CO.
" Mainpiece at top pintle		"	"	RUBBER OF WELDED CONSTRUCTION BY H. SCARR LTD.
" " heel ..		"	"	SIBBILDERS.
" how constructed .....		FORGED FRAME	2 SIDE PLATES	
" double or single plate coupling, vertical or horizontal .....		30	✓	See plan
		HORIZONTAL		

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) *OPEN HEARTH PROCESS*

PLATES:- *Appleby Frodingham Steel & Iron Co. Ltd.*

ANGLES:- *Jordan Long & Co. Ltd., Cobhill's Ltd., Appleby Frodingham Steel & Iron Co. Ltd., Kinninggrove Iron Co. Ltd.,*

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

EQUIPMENT No.						LETTER		ANCHORS.						
Number of Certificate.	Anchor.	WEIGHT, EX. STOCK		WEIGHT OF STOCK.		TEST, PER CERTIFICATE.		WEIGHT REQUIRED BY TABLE.	Description of Anchor.	Makers.	Where and when tested and Superintended.			
		Cwt.	qrs.	lbs.	Cwt.	qrs.	lbs.	Tons.	Cwt.					
40501	1st Bower ...	6	2	0	<u>STOCKLESS</u>		8	15	0	0	6½ ✓	B'YERS IMPROVED STOCKLESS	NOT STATED	JUNDESLAND 31-41 WYRMAN
40502	2nd " "	6	1	12	"	"	8	12	2	0	6 ✓	"	"	"
✓	3rd " "													
	Collective weight.	<u>12</u>	<u>3</u>	<u>12</u>							<u>12½ ✓</u>			
✓	Stream	✓			✓						✓		✓	✓

CHAIN CABLES.										HAWSELS 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.	Tons.	Break- ing.	Cwts.	qrs.	lbs.	Cwts.	Length.	Diam.					Fathoms.	Inch.		Tons.	Fathoms.
715060	90	1"	18	27	47.	2.	7.	46.	90	1	STUD LINK	NOT STATED	NETHERTON 21.3.41 J.A.R.F.	TOWLINE...	✓	✓	✓	✓	✓
115431A	60	1"	18	27	31.	3.	26				STUD LINK	NOT STATED	" 30.8.41. "	HAWSELS & WARPS	60	6"	✓	60	6"
														"	60	4½"	✓	60	4½"
		Cir.									Cir.			"	✓	✓	✓	✓	✓
Small Steels Cables - or Steel-Wire	✓	✓			✓			✓	✓	✓	✓	✓	✓	"	✓	✓	✓	✓	✓

Steering Chains (Size and Test)  $\frac{7}{8}$ " DIAR TEST  $9\frac{1}{8}$  TONS Windlass HORIZONTAL STEAM BY EMERSON WALKER LTD, GATESHEAD. Boats 2 WOOD LIFEBOATS UNDER WELIN  $17' 6" \times 6' 0" \times 2' 35"$

**Ceiling in Holds,** thickness and material ..... ✓ **Cargo Battens,** thickness, material and spacing ..... ✓

Cargo Hatchways.—(Upper Deck) 2 COAL HATCHES ON CASING TOP Thickness of Hatches BUNKER HATCHES STEEL HINGED COVER

Size of Hatchways No. 1 (Fwd.) ☒ No. 2 ☒ No. 3 ☒ No. 4 ☒ No. 5 ☒ No. 6 ☒

Number of Shifting Beams NONE. Per Pro HENRY SCARR LTD.

Builder's Signature *Richard Drustlon*

DIRECTOR

(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 and specification, and in conformity with the Rules for the class contemplated. The materials and workmanship are good. The fore and aft peak tanks, the reserve feed tank, and fresh water tank have been tested to Rule requirements and found satisfactory. Decks, casings, W.T. Bulkheads, steering gear and windlass have been tested and found satisfactory.

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

State whether the Vessel has been built under Special Survey YES. Signature R. McDonald.  
 Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to HULL Date of issue 4/3/42

Committee's Minute

Character assigned

FRI. 13 FEB 1942

For Towing Services  
Lloyd's Arch. of.

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 72. 01.

~~Write Incl~~  
~~Ann~~

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Lloyd's Register  
Foundation

W185-00112 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.)

The approved plans are being retained for reference in dealing with sister vessels, copies of there are in the Nottingham Office.

PARTICULARS OF ELECTRIC WELDING (if employed)

Cabin plate fore & aft welded. Reserve feed Tank Top welded to shell, Fresh Water Tank Top welded to shell. Stern frame & Rudder welded. All in accordance with approved plans. Approved electrodes employed on this work.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book

100. A.I. "FOR TOWING SERVICES"

Particulars of <b>Drop Test</b> of Cast Steel Anchors, viz. :— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	C		Q	lbs.	J.D.	3434	7/12/40
		4						
		0						
		0						
	2nd "	4		Q	lbs.	J.D.	3442	12/12/40
		0						
		0						
	3rd "	✓		Q	lbs.	J.D.	3442	12/12/40

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. ☒ ft., Bridge ☒ ft., Forecastle ☒ 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 ☒ Extreme Breadth over Belting (Circ. 1811) 26'-9 5/8" ☒ Over-all Length (Circ. 1708) 113'-4 1/2" ☒  
No. and Material of Decks 1 DK (STEEL)  
Parts of Bottom of Vessel coated with cement or approved composition CEMENT IN FORE AND AFTER PEAKS. AND FRESH WATER TANK  
" under boilers and in way of open floor elsewhere  
Parts of composition (if fitted) and of approval ☒ See letter 26.2.42

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,			Fore peak tank,	9'-0"	18
Double bottom, under Engines and Boilers,			After peak tank,	15'-3"	23
Double bottom, if under Engines only,			<u>FRESH WATER TANK. FORD.</u>	3'-5"	6
Double bottom, if under Boilers only,			<u>RESERVE FEED TANK.</u>	19'-58"	21
Double bottom, forward,			Other tanks, if fitted,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total length (if continuous) and Capacity			(If necessary, furnish further information by sketch.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Order for Special Survey No. 3223

Date 2.8.40

Dates of Surveys held while building

1940. Oct 30. Nov 7. 13. 20. 26. Dec 5. 12. 18. 1941. Jan. 1. 6. 28. 31. Feb. 10. 18. 25. Mar. 5. 24. 28. Apr. 27. 9. 10. 12. 21. 23. 25. 30. May 5. 7. 12. 16. 20. 22. 23. June 4. 11. 25. 28. July 1. 9. 14. 18. 22. 23. 25. 29. 30. Aug 7. 9. 13. 19. 21. Sept 2. 5. 24. Oct 6. 9. 10. 14. 16. 20. 21. 23. 27. 29. 30. 31. Nov 3. 6. 10. 12. 14. 21. Dec 2. 12.

Total No. of Visits 77