

STEEL ~~STEAMER~~ MOTORSHIP.

Received at London Office FEB 10 1940

State if Report has been sent on the Freeboard of the Vessel *No*State if Report is sent on the Machinery of the Vessel *Yes*

Date of completion of report

2<sup>nd</sup> Feb'y. 1940

Port of

LEITH

No.

20024.

Survey held at

LEITH

Date First Survey

JULY 6<sup>th</sup> 1939

Last Survey

1<sup>st</sup> Feb'y. 1940

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

STL. TWH. SCR. MOTOR TUG "M.S.C. MALLARD"

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

State Type of Erections

None

TONNAGE under Tonnage Deck...

133.69

CLASS  $\frac{3}{4}$  100 A-  
For River & Harbour  
Towing ServicesState if with freeboard  
as condition of Class

FEET.

Built at

LEITH

Launched 12 Dec. 1939 Yard No. 294

Builders Messrs Henry Robb Ltd.

Owners Manchester Ship Canal Co.

Managers

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

Residence Ship Canal House - King Street  
Manchester

Port of Registry Manchester

If surveyed while building, afloat, or in dry dock

While building &amp; afloat

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

Total

Gross Tonnage

130.77

Register Tonnage Towing - 7/16  
Non-Towing 46.92REGISTERED DIMENSIONS.  
FEET.

85.45

22.15

9.15

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

L 86.0

Breadth (greatest moulded)

B 23.0

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

D 11.5

1st Longitudinal Number (L x D)

= 989

2nd Numeral L x (B + D)

= 2964

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

10.27

Proportions—Depth to Length—Uppermost con-  
tinuous deck to top of keel

7.47

Do. Long Bridge to top  
of keel

Draught Moulded

8'-2 1/2"

## 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.
St. Spacing amidships	21 1/2	✓	Bracket Floors, Frame		
" from 1/2 length amidships to Collision bulkhead	21 1/2	✓	" " Reversed Frame		
" in peaks	21 1/2	✓	" " Vertical Struts		
FRAMING.			Centre Girder, depth and thickness amidships		
Amidships, Angle, $\frac{1}{2}$ or $\frac{3}{4}$ in Eng. Space	5 3 40	✓	" " top Angles		
" Clear of Eng. Space	5 3 34	✓	" " bottom Angles		
" Extends up to	Deck	✓	Side Girders, No. each side and thickness		
Reversed Frame Amidships, Angle	✓		Margin Plate depth (excl. of flange) and thickness		
" Extends up to	✓		" " Vertical Angle to Tank side Bracket abaft 1/2 len. from stem		
Height of Framing Girder	5"	✓	" " Vertical Angle to Tank side Bracket from forward 1/2 len. from stem to Panting Area		
Angles in Uppermost Continuous 'tween Decks, Angle, $\frac{1}{2}$ or $\frac{3}{4}$			" " Gussets, spacing and scantling abaft 1/2 len. from stem		
" Second 'tween Decks, Angle, $\frac{1}{2}$ or $\frac{3}{4}$			" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area		
" Third " " "			Tank Side Brackets, height above base line at toe of Frame and thickness		
from 1/2 len. for'd. to 15% len. from Stem	5 3 34	✓	INNER BOTTOM PLATING.		
" in Peaks, Angle, $\frac{1}{2}$ or $\frac{3}{4}$	5 3 34	✓	Breadth and thickness of Middle Line Strake		
Number and Spacing of Rivets through Frame and Shell Plating amid- ships	Spaced 7 dia's apart C. to C.	✓	Thickness of remainder in Holds		
Is Frame Joggled	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?		
Do the scantlings and arrangements in the Painting Area in accordance with the Rules and/or as approved?			BEAMS.		
Do the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?			Uppermost Continuous Deck, amidships	6 3 36	✓
DOUBLE BOTTOM.			" " in Walls, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
Stems, Depth and thickness at mid-line in Holds	16 x 34	✓	" " in way of Bridge, Angle, $\frac{1}{2}$ or $\frac{3}{4}$	4 3 32	✓
Height of Brackets at side above base line at toe of frame	No Brackets	✓	Half beams $\frac{1}{2}$ or $\frac{3}{4}$		
Middle Line Keelson, on Floors, Angles, $\frac{1}{2}$ or $\frac{3}{4}$ only	9 x 3 x 40	✓	Spacing	Every frame	✓
" " Through Plate or Intercostal Plate	None	✓	Second Deck, amidships, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
" " Foundation Plate on Floors	None	✓	Spacing		
" " Flat Plate Keel Angles	Bar keel	✓	Third Deck, amidships, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
Keelsons, No. each side	None	✓	Spacing		
" thickness of Intercostal Plate	None	✓	Fourth Deck, amidships, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
" Angles	None	✓	Spacing		
DOUBLE BOTTOM.			Poop Deck, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
Solid Floors, thickness and spacing			Spacing		
" " Are Frame and Reversed Frame joggled?			Bridge Deck, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
Bracket Floors, breadth and thickness at middle line			Spacing		
" " breadth and thickness at margin plate			Forecastle Deck, Angle, $\frac{1}{2}$ or $\frac{3}{4}$		
			Spacing		



# 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.
<b>PILLARS</b> , No. of Rows.....			Stringer Plate, breadth and thickness in way of Bridge .....		
„ 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...		
„ „ „ „ „			If Sheathed, material and thickness .....		
<b>Centre Line Bulkhead.</b>			<b>Third Deck.</b>		
Stiffeners and Spacing.....			Stringer Plate, breadth and thickness.....		
Plating, thickness of .....			If Plated, state thickness.....		
<b>STRINGERS AND DECKS.</b>			<b>Fourth Deck.</b>		
<b>Uppermost Continuous Deck.</b>			Stringer Plate, breadth and thickness.....		
Stringer Plate, breadth and thickness in Wells.....	66" x .32 ✓		If Plated, state thickness .....		
„ „ „ „ in way of Bridge .....			<b>Poop Deck.</b>		
„ Angle in Wells .....	3 3 .32 ✓		Stringer Plate, breadth and thickness .....		
Thickness of Plating abreast Deck openings in way of Wells .....	.32 ✓		Plating, Sheathing, material and thickness ...		
Thickness of Plating abreast Deck openings in way of Bridge .....	✓		<b>Bridge Deck.</b>		
Thickness of Plating within line of openings...	✓		Stringer Plate, breadth and thickness.....		
If Sheathed, material and thickness .....	2 1/2" Teak in way of accomod. only ✓		Plating, Sheathing, material and thickness ...		
<b>Second Deck.</b>			<b>Forecastle Deck.</b>		
Stringer Plate, breadth and thickness in Wells...	✓		Stringer Plate, breadth and thickness.....		
			Plating, Sheathing, material and thickness ...		

## SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged?	RIVETS.		No. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.			SINGLE OR DOUBLE.	Diam.		Spacing cr. to cr.	Diam.	
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.	
FLAT PLATE KEEL .....	Bar keel ✓											
„ DBLG. (if any)	✓											
BOTTOM PLATING, No. of Strakes ....	A ✓	.375 ✓	.375 ✓	.375 ✓		Double ✓	3/4 ✓	3 ✓	Two ✓	3/4 ✓	2 3/8 ✓	Strapped
BILGE PLATING, No. of Strakes ....	B ✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Lapped
SIDE PLATING, No. of Strakes ....	C ✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
UPPER DECK, Sheer-strake in Wells.....	D ✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
UPPER DECK, Sheer-strake in Bridge ...	E ✓	.40 ✓	.40 ✓	.40 ✓		✓	✓	✓	✓	✓	✓	Strapped
STRAKE BELOW Sheer-strake in Wells.....												
STRAKE BELOW Sheer-strake in Bridge ...												
POOP SIDE PLATING .....												
BRIDGE SIDE PLATING ...												
FORECASTLE SIDE PLATING												

## WATERTIGHT BULKHEADS.

<b>Total No. of W.T. BULKHEADS in Vessel—</b>	
Extending to Upper Deck (Sec. 3 c)	4
„ Deck next below	✓
As per Rule	4 approved

## FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
<b>KEEL, Bar</b> .....	✓	Roller bar 7"x1" ✓		
<b>STEM</b> .....	✓	7"x1 1/2" ✓		44"x7 1/8"
<b>STERN FRAME</b> { Propeller Post .....	✓	✓		
{ Rudder „ .....	F.S.	5 1/2"x18" ✓	T.S. Forster & Sons	
<b>Speed of Vessel</b> .....		9 1/2 knots ✓		
<b>RUDDER—Type</b> .....		F.S. Ordinary	T.S. Forster & Sons	
„ A x D .....		42"x4" ✓		
„ Diam. of head .....		4 1/4" ✓		
„ Mainpiece at top pintle		4 1/4" ✓		
„ „ heel ...		3 1/4" ✓		
„ how constructed .....		Single plate	43 gms ✓	
„ double or single plate		Single	80 ✓	
„ coupling, vertical or horizontal.....		Horizontal ✓		

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
<b>MIDSHIP BULKHEAD, Upper tween decks</b>					
„ „ Second „	10	32"x50" ✓	5"x3'-30L" ✓	24" ✓	
„ „ Third { Fr. 15	15	30"x34" ✓	✓	30" ✓	
„ „ Holds { Fr. 33	33	30"x32" ✓	✓	30" ✓	
„ „ { Fr. 39	39	32" ✓	✓	34" ✓	
<b>COLLISION</b> „ (in Hold) { Fr. 42	42	30" ✓	4"x2'-30L" ✓	✓	
<b>AFTER PEAK</b> „ „ Fr. 5	5	30" ✓	5"x3'-30L" ✓	30" ✓	

<b>STEEL.</b>	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)
	Steel Coy. of Scotland; Lanarkshire Steel Co.; Cukilles Ltd.
	Has the Steel been tested as required by the Rules? Yes







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.)

List of approved plans forwarded with this report  
Midship Section  
Profile, Decks & Bulkheads  
Steelframe & Rudder  
Pumping Plan  
Propeller Bets. & Spansons  
Engine Seating  
Leads of steering gear  
Bosging  
Engine bearings  
Forging Reports  
Midship Section as Built

PARTICULARS OF ELECTRIC WELDING (if employed) *habin Flat welded to shell also sundry fittings welded.*

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book.  
"For Riv. Harb. Towing Services" — "Oil Engines"

Particulars of Drop Test of Cast Steel Anchors, viz.:—  
Weight, Surveyor's Initials, Number of Certificate, Date of Test.

1st Bower  
2nd "  
3rd "

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. *147437*

Signal Letters ☒

Extreme Breadth over Belting (Circ. 1611) *24.33'*

Over-all Length (Circ. 1703) *92.0'*

No. and Material of Decks *1 Pl. (SK)*

Parts of Bottom of Vessel coated with cement or approved composition

*Bottom coated with Bitumastic enamel, Peaks coated with Apexion*

*No coating in Oil fuel tank under Engines*

Particulars of composition (if fitted) and of approval

*"Bitulac"*

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,	<input checked="" type="checkbox"/>		Fore peak tank,	<i>15.04</i>	<i>12.5</i>
Double bottom, under Engines and Boilers,	<input checked="" type="checkbox"/>		After peak tank,	<i>8.96</i>	<i>6.2</i>
Double bottom, if under Engines only,	<i>30.46</i>	<i>22.7</i>	Deep tank, aft, <i>Frame 5 to 10 See letter 5/3/40</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Double bottom, if under Boilers only,	<input checked="" type="checkbox"/>		Deep tank, forward,	<input checked="" type="checkbox"/>	
Double bottom, forward,	<input checked="" type="checkbox"/>		Other tanks, if fitted,		
Total length (if continuous) and Capacity			(If necessary, furnish further information by sketch.)		

Order for Special Survey No. *2010*

Date *4.4.39*

Dates of Surveys held while building

*1939 July 6, 10, 13, 18, 31 Aug. 2, 14, 28, 31 Sept. 6, 11, 13, 20, 27 Oct. 2, 6, 16, 18*  
*23, 30. Nov. 6, 8, 10, 13, 18, 27 Dec. 4, 11, 12*  
*1940 Jan. 8, 15, 22, 29 Feb. 1st*

Total No. of Visits *34*