

# STEEL STEAMER OR MOTORSHIP.

Received at London Office

30 OCT 1944

State if Report has been sent on the Freeboard of the Vessel

State if Report is sent on the Machinery of the Vessel

Date of completion of report

Port of

NEWCASTLE-ON-TYNE

No.

102431

Survey held at

Date First Survey

(1943)

July 20

Last Survey

Oct 9th

1944

On the

Single screw tug 'Empire Susan'

State Type

Full Scantling

State Type of Erections

Forecasts

TONNAGE under

Tonnage Deck ...

CLASS

+100A1. For

State if with freeboard

as condition of Class

Built at

Wellington Quay - 77 - Type

Do. of space or spaces

between Tonnage Dk.

Length from fore part of stem to after part of stern

L

186.0

Launched

19th July 1944

Yard No. 21.

Total

Breadth (greatest moulded)

B

33.0

Builders

Messrs. C. &amp; J. (Successors) Ltd.

Gross Tonnage

591.75

Depth, at middle of length from top of keel to top

D

16.0

Owners

Ministry of War Transport

Register Tonnage

65.98

1st Longitudinal Number (L x D)

2160

Managers

W. Watkins

## REGISTERED DIMENSIONS.

FEET

Length

137.1

Framing Depth "d," at middle of length. See

14.375

Residence

Breadth

33.1

Proportions—Depth to Length—Uppermost con-

8.44

Port of Registry

Newcastle

Depth

15.1

Draught Moulded

15.6

If surveyed while building, afloat, or in dry dock

## 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	30	✓	Bracket Floors, Frame		
" " from 1/2 length amidships to Collision bulkhead	30	✓	" " Reversed Frame		
" " in peaks	30	✓	" " Vertical Struts		
SIDE FRAMING.			Centre Girder, depth and thickness amidships		
Frame Amidships, Angle, $\square$ or $\square$	6 3 35	✓	" " top Angles		
" " Extends up to	Forecasts	✓	" " bottom Angles		
Reversed Frame Amidships, Angle	3 1/2 3 1/2 14	✓	Side Girders, No. each side and thickness		
" " Extends up to	Across Floors	✓	Margin Plate depth (excl. of flange) and thickness		
Depth of Framing Girder	6	✓	" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem		
Frames in Uppermost Continuous 'tween Decks, Angle, $\square$ or $\square$			" " Vertical Angle to Tank side Bracket from forward 1/4 len. from stem to Panting Area		
" " Second 'tween Decks, Angle, $\square$ or $\square$			" " Gussets, spacing and scantling abaft 1/4 len. from stem		
" " Third			" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area		
" " from 1/2 len. for'd. to 15% len. from Stem			Tank Side Brackets, height above base line at toe of Frame and thickness		
" " in Peaks, Angle, $\square$ or $\square$	6 3 35	✓	INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	3/4 - 5/4	✓	Breadth and thickness of Middle Line Strake		
State if Frame Joggled	Yes	✓	Thickness of remainder in Holds		
Are the scantlings and arrangements in the Panting Area 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?		
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes	✓	BEAMS.		
SINGLE BOTTOM.			Uppermost Continuous Deck, amidships in Wells, Angle, $\square$ or $\square$	5 3 30-36 B.A.	✓
Floors, Depth and thickness at mid-line in Holds	19 1/2 x 34	✓	" " in way of Bridge, Angle, $\square$ or $\square$	5 3 30	✓
Height of Brackets at side above base line at toe of frame	10 1/2	✓	Spacing	20	✓
Middle Line Keelson, on Floors, Angle, $\square$ or $\square$	12 3/4 3 1/2 x 50	✓	Second Deck, amidships, Angle, $\square$ or $\square$		
" " Through Plate or Inter-costal Plate		✓	Spacing		
" " Foundation Plate on Floors		✓	Third Deck, amidships, Angle, $\square$ or $\square$		
" " Flat Plate Keel Angles		✓	Spacing		
Side Keelsons, No. each side	10 x 3 1/2 x 15 B.A.	✓	Fourth Deck, amidships, Angle, $\square$ or $\square$		
" " thickness of Intercostal Plate	38	✓	Spacing		
" " Angles	5 3 1/2	✓	Poop Deck, Angle, $\square$ or $\square$		
DOUBLE BOTTOM.			Spacing		
Solid Floors, thickness and spacing			Bridge Deck, Angle, $\square$ or $\square$	3 3 38	✓
" " Are Frame and Reversed Frame joggled?			Spacing	28	✓
Bracket Floors, breadth and thickness at middle line			Forecastle Deck, Angle, $\square$ or $\square$	5 3 30-36	✓
" " breadth and thickness at margin plate			Spacing	20	✓



# 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, No. of Rows</b> .....	✓		Stringer Plate, breadth and thickness in way of Bridge .....		
„ in 'tween Decks, Size and Spacing .....	3 1/2 dia ✓		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	63 1/2 x .40 ✓		If Plated, state thickness .....		
„ „ „ „ in way of Bridge	✓		<b>Poop Deck.</b>		
„ Angle in Wells .....	3 1/2 3 1/2 .40 ✓		Stringer Plate, breadth and thickness .....		
Thickness of Plating abreast Deck openings in way of Wells .....	.34 ✓		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...	.30 ✓		Stringer Plate, breadth and thickness .....	46 x .26 ✓	
If Sheathed, material and thickness .....	Baro Steel ✓		Plating, Sheathing, material and thickness ...	.26 Baro Steel ✓	
<b>Second Deck.</b>			<b>Forecastle Deck.</b>		
Stringer Plate, breadth and thickness in Wells	38 Comp. over fored accom ✓		Stringer Plate, breadth and thickness .....	44 x .26 ✓	
	✓		Plating, Sheathing, material and thickness...	42 x .26 to .26 2 1/2 o. Rigs in way of accom ✓	

# SHELL PLATING.

SCANTLINGS.					RIVETING.				
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged? <i>Yes</i>		BUTTS.	
	Breadth.	Thickness.	Thickness.	Thickness.		SINGLE OR DOUBLE.	RIVETS.	No. OF ROWS OF RIVETS.	STRAPPED OR LAPPED.
<i>Starboard.</i>									
Flat Plate Keel .....	51 ✓	.40 ✓	.40 ✓	.40 ✓		Double ✓	3/4 6-8 Rigs each side 22' from keel	Two ✓	3/4 258 Straps ✓
„ Dblg. (if any) .....	46 ✓	.38 ✓	.34 ✓	.42 ✓		Single ✓	„	„	Laps ✓
Bottom Plating, No. of Strakes .....	49 ✓	.38 ✓	.38 ✓	.50 ✓		„	„	„	„
Bilge Plating, No. of Strakes .....	58 ✓	.38 ✓	.34 ✓	.34 ✓		„	„	„	„
Side Plating, No. of Strakes .....	55 ✓	.38 ✓	.38 ✓	.34 ✓		„	„	„	„
Upper Deck, Sheer-strake in Wells .....	50 ✓	.38 ✓	.38 ✓	.34 ✓		„	„	„	„
Upper Deck, Sheer-strake in Bridge .....	56 ✓	.50 ✓	.50 ✓	.34 ✓		Double ✓	„	„	„
Strake below Sheer-strake in Wells .....									
Strake below Sheer-strake (in Bridge and Forecastle)	46 ✓	.30 ✓	.50 ✓	.30 ✓		Single ✓	3/4	258	Straps ✓
Poop Side Plating .....					Combined Bridge & Forecastle see plan				
Bridge Side Plating .....	44 ✓	.26 ✓	.26 ✓	.26 ✓		Single ✓	3/4	Two	258 Straps ✓
Forecastle Side Plating									

# WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—	W.T.BHs: AP No 7, Fwd G/L No 60, FP No 76 O.T.BH: Btwn E & B No 39
Extending to Upper Deck (Sec. 3 c)	3 W.T. & 5 O.T. 1 O.T. for record
„ „ „ „ „	Flat.
„ „ „ „ „	Deck next below
„ „ „ „ „	2 W.T.
As per Rule	4 BH FOR RECORD

# FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
<b>KEEL, Bar</b> <i>Rollad. flat steel</i>		7 x 1 5/8 ✓		
<b>STEM</b> .....		7 x 1 5/8 ✓		
<b>STERN FRAME</b> { Propeller Post .....	<i>Forged</i>	7 x 3 1/2 ✓	<i>T.S. Foster &amp; Sons Sunderland.</i>	
{ Rudder „ .....	<i>Steel</i>	6 x 3 1/2 ✓		
Speed of Vessel .....		13 Knots ✓		
<b>RUDDER—Type</b> .....				
„ A x D <i>60.88 x 4.58</i>		15207 ✓		
„ Diam. of head .....	<i>Forged</i>	7 ✓		
„ Mainpiece at top pintle		7 1/2 x 5 1/8 ✓		
„ „ heel .....		5 1/2 x 3 1/2 ✓		
„ how constructed .....	<i>Forged Frame</i>			
„ double or single plate coupling, vertical or horizontal .....				

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
<b>MIDSHIP BULKH'D, Upper 'tween decks</b>					
„ „ „ Second „					
„ „ „ Third „					
N° 65 „ „ „ „	30-34	7 x 3 x 36 BA ✓	24 ✓	✓	✓
N° 67 „ „ „ „	30-34	6 x 3 x 40 BA ✓	24 ✓	✓	✓
„ „ „ „	30-34	7 x 3 x 36 BA ✓	24 ✓	✓	✓
„ „ „ „	30-34	6 x 3 x 40 BA ✓	24 ✓	✓	✓
„ „ „ „	30-34	7 x 6 x 33 BA ✓	24 ✓	✓	✓
„ „ „ „	30-34	6 x 3 x 40 BA ✓	30 ✓	✓	✓
<b>COLLISION</b> „ „ „ „	26-34	4 x 3 x 30 BA ✓	24 ✓	✓	✓
<b>AFTER PEAK</b> „ „ „ „	30-38	5 x 3 x 30 BA ✓	24 ✓	✓	✓
„ „ „ „	30	4 x 3 x 36 ✓	24 ✓	✓	✓

<b>STEEL.</b>	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>Consett Iron Co., South Durham Steel Co., Dorman Long &amp; Co.</i>
	Has the Steel been tested as required by the Rules? <i>Yes</i> ✓



EQUIPMENT No.				LETTER				ANCHORS.			
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK.			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.			Where and when tested, and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	
46300	1st Bower	9	0	1	Stockless			11	4	2	21
46233	2nd "	8	2	11	do.			10	15	0	0
	3rd "										
	Collective weight	17	2	12							
57918	KEGGE Stream	3	2	14	1	0	0	6	0	2	21

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.		Descrip- tion.	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.	Length.	Diam.	Length.					Ins.	Length.		Ins.	Length.	Ins.
68873	150 5/16	1 3/16	25 3/8	38	109-2-12			135	1 1/16	Stud Link	Not stated	Cradley Heath 8 <sup>th</sup> Sept. 1944 J. HOBBS	TOWLINE						
19468	15	1 1/16	25 3/8	38	11-2-0					do.	do.	Low Walker 14 <sup>th</sup> Oct. 1944 R.T. VOGAN	HAWSERS & WARPS	60	7		60	7	
19471	15 1/2	1 3/16 Cir.	25 3/8	38	11-1-21					do.	do.	Low Walker 14 <sup>th</sup> Oct. 1944 R.T. VOGAN		60	5 1/2		60	5 1/2	
Iron Stream Chain or Steel Wire	60	2 1/16		13-2				60	2 1/16		R. Hood Haggia	R. Hood Haggia	"						

Steering Gear, Type (Power <sup>and</sup> ~~or~~ hand) By Dogfish & Co. Ltd. Turbine-on-Tyre
Alternative Means of Steering Block & Tackle

Steering Chains (Size and Test) 1" dia 12 Tons test
Windlass Horizontal steam by Clarke Chapman & Co. Ltd
Boats 2 wood lifeboats (1 fitted with motor)

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

Oil Fuel Tank hatches ✓

Cargo Hatchways. (Upper Deck) Steel plates and angles
Thickness of Hatches Steel

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

Number of Shifting Beams and/or Fore and Afters ✓

Builder's Signature A. J. Cragg
PPD. Low
DIRECTOR

**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 No. 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 in conformity with the Society's Rules and Regulations and the Secretary's letters.  
The scantlings and arrangements are in accordance with, or equivalent to, those shown on the approved plans.  
The material and workmanship are good. ✓ as Freeboard has been assigned and marks cut in on vessel's side and verified. ✓ The peak tanks, fresh water tanks, oil fuel bunkers and settling tank have been tested to Rule requirements and found satisfactory. ✓ Main and auxiliary steering gear and windlasses have been tested under working conditions and found satisfactory. ✓ Oil fuel bunkers are situated between engine and boiler spaces, at sides of boiler space and also forward of Boiler room bulkhead. ✓

The amount of Entry Fee £ 4 : 0 : 0
Special Survey Fee... + 25% £ 74 : 0 : 0
Freeboard Fee 8 0 0
Travelling Expenses, if any £ : :

Fees applied for, 25 OCT 1944
Received by me, 19

(Special notations, where part of class, to be stated.)
+ 100A1
I am of opinion the Vessel should be Classed In Towing Services

State whether the Vessel has been built under Special Survey yes
Signature Stephen P. Roake
Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to Norwich
Date of issue 10/11/44

Committee's Minute ✓

Character assigned + 100A1 In Towing Services
2nd test in Oil Fuel 10.4.44 3P above 150°?
Long's 2 COP: + LMC 10.4.44 3D OC

The Surveyors are requested not to write on or below the Committee's Minutes.



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.)

Empire Julia Newcastle Report No. 102249

PARTICULARS OF ELECTRIC WELDING (if employed)

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

+ 100 Al. "For Towing Services" E.S.D. D.F. Butts of Decks electrically welded.

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

	Weight	Surveyor	Cert. No.	Date	
1st Bower	H6300	5-2-0	A.E.G.	5712	24-3-44
2nd "	H6288	4-2-0	A.E.G.	429	13-4-44
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. 169185 Signal Letters ☒ Extreme Breadth over Belting 39.99' Over-all Length 143.2'  
(Circ. 1611) (Circ. 1703)

No. and Material of Decks 1 deck steel

Parts of Bottom of Vessel coated with cement or approved composition Complete clear of Oil Fuel Pumps

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,			Fore peak tank,	<u>75</u>	<u>30.43</u>
Double bottom, under Engines and Boilers,			After peak tank, <u>11'8" + (8'6" counter)</u>	<u>30.17</u>	<u>33.7</u>
Double bottom, if under Engines only,			Deep tank, aft,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Double bottom, if under Boilers only,			Deep tank, forward,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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.)		

Order for Special Survey No. 5695

Date 20/8/43

Dates of Surveys held while building

(1943) July 2, 10 Aug. 10 Oct. 28 Nov. 1, 25, 30, Dec. 7, 16. (1944) Jan. 12, 20, 21 Feb. 1, 9, 11, 18, 21, 23, 25, Mar. 7, 9, 14, 23, 28, 29, Apr. 21, 24, 26, May 1, 3, 8, 10, 12, 11, 16, 18, 22, 30, June 12, 14, 16, 27, 28, 29, July 3, 5, 7, 14, 17, 18, 19, 20, 31, Sept. 1, 12, 15, 20, 22, 27, Oct. 2, 4, 5, 6, 7, 9

Total No. of Visits 67