

# STEEL STEAMER OF MOTORSHIP.

Received at London Office

10 DEC 1941

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

*1<sup>st</sup> December 1941*

Port of

*Sunderland*No. *33265*

Survey held at

*Sunderland*

Date First Survey

*14 December 40*

Last Survey

*29 November 1941*

On the

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

M.V.

*"Empire Grenfell"**Single screw**Machinery fitted Amidships*

State Type

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

*Intermediate between F.S. and C.S.S.*State Type of Erections *Hull - Flush Deck.*

TONNAGE under Tonnage Deck...

*6786.72*CLASS *+100 A.I.*

State if with freeboard as condition of Class

*Yes.*

Built at

*Sunderland*

Launched

*30.6.41*

Yard No.

*678*

Builders

*Wm Doxford & Sons Ltd.*

Owners

*Ministry of War Transport.*

Managers

*Sir R. Roper & Co Ltd.*

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

Residence

*West Hartlepool.*

Port of Registry

*Sunderland.*

If surveyed while building, afloat, or in dry dock

*During Construction*

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

Total

Gross Tonnage

*7238*

Register Tonnage

*5898.95*

## REGISTERED DIMENSIONS.

FEET.

Length

*428.8*

Breadth

*56.5*

Depth

*35.5*

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

*L 421.87*

Breadth (greatest moulded)

*B 56.21*

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

*D 38.07*

1st Longitudinal Number (L x D)

*= 13581*

2nd Numeral L x (B + D)

*= 39252*

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

*25.35*

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

*11.08*

Do. Long Bridge to top of keel

Draught Moulded

*27-2 1/4*

## 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	31 1/2				Bracket Floors, Frame	6	3 1/2	40	
" " from 1/2 length amidships to Collision bulkhead	27				" " Reversed Frame	6	3 1/2	34	
" " in peaks	24				" " Vertical Struts	10	3 1/2	40	
SIDE FRAMING.					Centre Girder, depth and thickness amidships	44 1/2	x	54	
Frame Amidships, <del>13 1/2</del>	13 1/2	4	54		" " top Angles	DOUBLE	3 1/2	3 1/2	48
" " Extends up to					" " bottom Angles	DOUBLE	5	5	50
Reversed Frame Amidships, Angle					Side Girders, No. each side and thickness	ONE		38	
" " Extends up to					Margin Plate depth (excl. of flange) and thickness	40 3/4	x	54	
Depth of Framing Girder					" " Vertical Angle to Tank side Bracket abaft 1/2 len. from stem	6	6	45	
Frames in Uppermost Continuous tween Decks, <del>6</del>	6	3 1/2	35		" " Vertical Angle to Tank side Bracket from forward 1/2 len. from stem to Panting Area	6	6	45	
" " Second tween Decks, Angle, [ or ]					" " Gussets, spacing and scantling abaft 1/2 len. from stem	13 1/2	x	42	Continuous
" " Third " " "					" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area	20	x	42	De
" " from 1/2 len. for'd. to 15% len. from Stem	13 1/2	4	60		Tank Side Brackets, height above base line at toe of Frame and thickness	70	x	46	
" " in Peaks, <del>8</del>	8	3 1/2	38		INNER BOTTOM PLATING.				
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8	@	5 1/4		Breadth and thickness of Middle Line Strake	78	x	50	
State if Frame Joggled	Joggled				Thickness of remainder in Holds			44	
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?			YES.	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes.				BEAMS.				
ANGLE BOTTOM.					Uppermost Continuous Deck, amidships	8	3 1/2	35	
Floors, Depth and thickness at mid-line in Holds					" " in way of Bridge, Angle, [ or ]				
Height of Brackets at side above base line at toe of frame					Spacing			3 1/2	
Middle Line Keelson, on Floors, Angles, [ or ]					Second Deck, amidships, <del>9</del>	9	3 1/2	38	
" " Through Plate or Intercoastal Plate					Spacing			3 1/2	
" " Foundation Plate on Floors					Third Deck, amidships, Angle, [ or ]				
" " Flat Plate Keel Angles					Spacing				
Side Keelsons, No. each side					Fourth Deck, amidships, Angle, [ or ]				
" " thickness of Intercoastal Plate					Spacing				
" " Angles					Poop Deck, Angle, [ or ]				
DOUBLE BOTTOM.					Spacing				
Solid Floors, thickness and spacing	42	@	9 1/2		Bridge Deck, Angle, [ or ]				
" " Are Frame and Reversed Frame joggled?			YES.		Spacing				
Bracket Floors, breadth and thickness at middle line	33	x	42		Forecastle Deck, Angle, [ or ]				
" " breadth and thickness at margin plate	33	x	42		Spacing				

## 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.
	1	2	3	4			
Stringer Plate, breadth and thickness in way of Bridge						✓	
Thickness of Plating abreast Deck openings in way of Wells						375	✓
Thickness of Plating abreast Deck openings in way of Bridge						✓	
Thickness of Plating within line of openings...						34	✓
If Sheathed, 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						✓	
<b>Second Deck.</b>							
Stringer Plate, breadth and thickness	70	x	40		✓		

## SHELL PLATING.

SCANTLINGS.										RIVETING.					
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if Joggled?			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.
FLAT PLATE KEEL .....	52	✓	79	✓	69	✓	69	✓	DOUBLE	1	4	FOUR	1	3 3/4	LAPPED
„ DBLG. (if any)	✓	✓	✓	✓	⊗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BOTTOM PLATING, No. of Strakes ..... <i>4</i> .....)	✓	64	✓	50	✓	63	✓	DOUBLE	7/8	3 1/2	FOUR	7/8	3 1/2	LAPPED.	
BILGE PLATING, No. of Strakes ..... <i>4</i> .....)	✓	64	✓	50	✓	63	✓	"	7/8	3 1/2	"	7/8	3 1/2	"	
SIDE PLATING, No. of Strakes ..... <i>5</i> .....)	✓	63	✓	47	✓	47	✓	"	7/8	3 1/2	THREE	7/8	3 1/2	"	
UPPER DECK, Sheer-strake <del>in Wells</del> .....)	90	✓	67	✓	47	✓	47	✓	"	7/8	3 1/2	FOUR	7/8	3 1/2	"
UPPER DECK, Sheer-strake in Bridge ...)															
STRAKE BELOW Sheer-strake in Wells.....)															
STRAKE BELOW Sheer-strake in Bridge ...)															
POOP SIDE PLATING .....															
BRIDGE SIDE PLATING ...															
FORECASTLE SIDE PLATING															

## WATERTIGHT BULKHEADS.

## FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—				Casting or Forging, Scantlings, Maker's Name, Any Departure from Approved Plans to be Noted.			
Extending to Upper Deck (Sec. 3 c)	Seven	one	in back				
Deck next below	✓	one	of this report				
As per Rule	Seven						
Plating Thickness.	STIFFENERS.				No. of Rows of Rivets.	Strapped or Lapped.	Any Departure from Approved Plans to be Noted.
	VERTICAL.	Horizontal.	Scantlings.	Spacing.			
N <sup>o</sup> 63, 81, 92	26	5x3x30	✓	30	✓	✓	
N <sup>o</sup> 14 134	28	6x3x30	✓	30	✓	✓	
N <sup>o</sup> 39	27	5x3x34	✓	30	✓	✓	
Holds N <sup>o</sup> 63	50	12x3 1/2 x 45	✓	28	✓	✓	
COLLISION (in Hold) N <sup>o</sup> 198	48	9x3 1/2 x 30	✓	24	✓	✓	
AFTER PEAK	71	42x30	✓	24	✓	✓	

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

STEEL. *Connell, George Keel, Skinningrove, Appleby Ford, Dorman Long, Colville, & Durham, Wm Beardmore.*

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

## EQUIPMENT No 40 109

## LETTER a

## ANCHORS.

Number of Certificate.	Anchor.	WEIGHT, EX. STOCK.	WEIGHT OF STOCK.	TEST, PER CERTIFICATE.	WEIGHT REQUIRED BY TABLE 52.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
40596	1st Bower	68 1 17	✓	✓	52 18 3 0	68	BYERS-CAST STEEL HEAD STOCKLESS	W.L. BYERS & CO. LTD. SUNDERLAND 14.3.41
40697	2nd "	68 0 10	✓	✓	52 15 2 14	68	BYERS-CAST STEEL HEAD STOCKLESS	W.L. BYERS & CO. LTD. SUNDERLAND 10.4.41
	3rd "					58 2		
	Collective weight.					194 3		
54238	Stream	19 0 24	5	0	0 20 1 3 14	19	ORDINARY FORGED WAGHART IRON ANCHOR.	CROSLY HEATH 30.6.41 L.C.D.

## CHAIN CABLES.

## HAWSEERS 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.	State Break-tory, Ing.	Supplied.	Per Rule.	Length, Diam.				Length, Cir.	Length, Cir.	Length, Cir.
116126	225	2	100-16 1/4-2	489-1-14	720-75	270-25	STUD LINK TAYCO S. TAYLOR & SONS.	NETHERTON	8.4.41 R.J.V. NETHERTON	120 4 3/4	120 4 3/4
116226	15	2	100-16 1/4-2	31-2-21			TAYCO S. TAYLOR & SONS.	NETHERTON	15.5.41 J.A.R. NETHERTON	2@90 2 3/4	2@90 2 3/4
116227	15	2	100-16 1/4-2	31-3-14			TAYCO S. TAYLOR & SONS.	NETHERTON	15.5.41 J.A.R. NETHERTON	2@90 2 1/2	2@90 2 1/2
116228	15	2	100-16 1/4-2	32-0-7			TAYCO S. TAYLOR & SONS.	NETHERTON	15.5.41 J.A.R. NETHERTON	2@90 2 1/2	2@90 2 1/2
116228	90	5	52-8		90	5	BRITISH ROPE CO.				

Steering Gear, Type (Power or hand) *Donkins 7x8 1/2 (Steam Telemotor)* Alternative Means of Steering *Block and tackle to after Winch*

Steering Chains (Size and Test) *✓* Windlass *Emerson Walker 10x12 1/2* Boats *1 16.0x5.75x2.35 = 12 " 1 25.4x8.0x3.3 = 40 Pans.*

Ceiling in Holds, thickness and material *Looking over lumbers only* Cargo Battens, thickness, material and spacing *none fitted, 8 bats fitted.*

Cargo Hatchways.—(Upper Deck) *Reith patent* Thickness of Hatches *2 3/8*

Size of Hatchways No. 1 (Fwd.) *31'6" x 22'0"* No. 2 *31'6" x 22'0"* No. 3 *31'6" x 22'0"* No. 4 *31'6" x 22'0"* No. 5 *31'6" x 22'0"* No. 6 *—*

Number of Shifting Beams *5 5 5 5 5*

Builder's Signature *WILLIAM DOXFORD & SONS, Limited.*

Managing 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 *Motor Ship.*

(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 vessel has been built in accordance with the approved plans, and in general conformity with the requirements of the Rules. The materials and workmanship are good. Oil fuel F.P. not lower than 150°F, is carried in Nos. 2, 3, 5, 6 & 7 Double bottom tanks, and the requirements of Sec 20 of the Rules, so far as applicable have been complied with. All double bottom tanks, cofferdam, deep tanks and Peckers have been tested under water pressure, the upper and lower decks, W.T. Deck, tunnel and tween deck doors have been tested, as required by the rules and proved satisfactory. The steering gear, secondary means of steering, windlass and pumps have been tried under working conditions whilst moored in the river. The vessel is fitted with "Wireless" and "Directional Wireless". Scupper pipes from cargo tween decks, lead to bilges with self-closing cocks in Engine Room. The freeboards have been marked on the vessel's sides, verified and cut in. Hatch covers not fitted on Second deck. Cargo battens not fitted but cleats fitted in Holds and tween decks. The equipment of buoys and labels have been required as per Secretary's letters. Locking bars fitted to all Hatches on upper deck. Openings in tween deck bldg closed.

The amount of Entry Fee ..... £ 10 : : : Fees applied for, *+ 1 DEC 1941*

Special Survey Fee.... £380 : 19 : : Received by me, *4 DEC 1941*

Travelling Expenses, if any £ *18.0.0.*

I am of opinion the Vessel should be Classed *+ 100A1* With freeboard.

State whether the Vessel has been built under Special Survey *Yes.* Signature *Kel F. H. Duncanson*

Certificate to be sent to *Sunderland* Date of issue *27/1/42*

Committee's Minute *19 DEC 1941*

Character assigned *+ 100A1 With freeboard*

*Lloyd's Reg. OS.*

*note for SR L. (from) White St. Mark. 9/11/41*

*Lloyd's Register Foundation*

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.)

Sister vessel to same Builders No 677 "Empire Raleigh"

Plans.

Midship Section  
Profile and Decks.

Openings in 'tween deck bulkheads closed by plates with through bolts. 'Tween dk bhd. next aft full BH openings closed by riveted plates.

See letters 22.12.41 & 24.1.42

PARTICULARS OF ELECTRIC WELDING (if employed) Heat weld and Gas-arc overhead electrodes

Parts welded:—

Second deck stringer to shell; Deep and Peak tank girders; Rudder plates.  
Bulkhead stiffener brackets to tank top; Hatch web mountings; Ventilator coverings to deck; Tank side gussets.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Lloyd's A.C.P. Cruiser Stern

Six Sub-divisional W.T. Bldgs fitted in 'tween decks.  
Motor Engines; D.F.; Cargo bottoms not fitted.

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

1st Bower	40-1-12	J.D.	3489
2nd "	40-3-12	J.D.	3490
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. 169000 Signal Letters Extreme Breadth over Belting Over-all Length 442'-11 1/4"

No. and Material of Decks Two decks (Steel)

Parts of Bottom of Vessel coated with cement or approved composition Nos. 1 and 4 Double bottom tanks, Cofferdams and bilges.

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,	128.4	355	Fore peak tank,	24	134
Double bottom, under Engines and Boilers, Feed Water	10.5	50	After peak tank,	18	155
Double bottom, if under Engines only,	23.6	84	Deep tank, aft,	—	—
Double bottom, if under Boilers only, Cofferdams.	5.2	—	Deep tank, forward, Amidships	28.8	1205
Double bottom, forward,	193.5	693	Other tanks, if fitted,		
Total length (if continuous) and Capacity	356.2	1182	(If necessary, furnish further information by sketch.)		

Order for Special Survey No. 5960

Date 13.9.40

Dates of Surveys held while building

1940. Dec. 14, 17, 30, 31. Jan. 1, 2, 8, 12, 17, 20, 28. Feb. 4, 5, 9, 11, 12, 26. Mar. 11, 15, 20, 28  
Apr. 1, 10, 15, 17, 21, 23, 25. May 1, 7, 9, 12, 14, 16, 19, 20, 21, 26, 30. June 5, 9, 11, 13, 16, 17, 18, 26, 30  
Aug. 18, 26. Sep. 3, 4, 5, 9, 23, 25, 26. Oct. 2, 3, 6, 7, 8, 10, 14, 15, 16, 17, 28, 30, 31. Nov. 8, 14, 27, 30  
10. 11, 12, 14, 17, 18, 19, 20, 21, 24, 25, 26, 28, 29.

Total No. of Visits 88