

RECEIVED

18 DEC 1943

IN D.O.

STEEL STEAMER OR MOTORSHIP.

Received at London Office

18 DEC 1943

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 (from 7mc)

Date of completion of report 14th December 1943 Port of Sunderland No. 33847

Survey held at Sunderland Date First Survey 27th February Last Survey 13th December 1943

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) Single screw 'EMPIRE DUCHESS' Machinery amidships

State Type (Full Sailing, Complete Superstructure with or without Tonnage Openings) Intermediate between 75 & 655 State Type of Erections Fixed on upper deck

TONNAGE under Tonnage Deck ... 6574.45

CLASS 100 A.1

State if with freeboard as condition of Class yes

Built at Sunderland

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

Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a) L 425.0

Launched 14th August 1943 Yard No. 478

Breadth (greatest moulded) B 56.0

Builders Short Brothers Limited

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) D 37.67

Owners Ministry of War Transport

1st Longitudinal Number (L x D) 15193.75

Managers Messrs H. Hogarth & Sons

2nd Numeral L x (B + D) 38993.75

(Where necessary to be entered in Reg. Book)

Framing Depth "d," at middle of length. See Sec. 3 (1d) 23.3

Residence 120 St Vincent St Glasgow

Proportions—Depth to Length—Uppermost continuous deck to top of keel 11.27

Port of Registry Sunderland

Do. Long Bridge to top of keel ✓

If surveyed while building, afloat, or in dry dock

Draught Moulded 26-7 5/8

While building

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 ✓		Bracket Floors, Frame	✓	
" " from 1/3 length amidships to Collision bulkhead	24 ✓		" " Reversed Frame	✓	
" " in peaks	24 ✓		" " Vertical Struts	✓	
SIDE FRAMING.			Centre Girder, depth and thickness amidships	43 1/4 x 54 ✓	
Frame Amidships, Angle, [or]	12 x 3 1/2 x 32.9/105 ✓	TO 2ND DECK, UPPER ON	" " top Angles	3 1/2 x 3 1/2 x 48 ✓	
" " Extends up to	ALTERNATES 8 & E BEAMS ✓		" " bottom Angles	4 x 4 x 54 ✓	
1/10 TUNNEL RECESS			6 x 3 1/2 x 42 L TO SHELL ✓		
Reversed Frame Amidships, Angle	10 x 3 1/2 x 48 ✓		6 x 3 x 42 L TO T.T. ✓		
" " Extends up to	✓		Side Girders, No. each side and thickness ONE.		
Depth of Framing Girder	12 ✓		Margin Plate depth (excl. of flange) and thickness	36 x 54 ✓	
Frames in Uppermost Continuous 'tween Decks, Angle, [or]	8 x 3 1/2 x 35 L EVERY ✓	FREE FORD OF 3/5 L	" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem	6 x 6 x 44 ✓	
" " Second 'tween Decks, Angle, [or]	5 x 3 1/2 x 36 00 AFT. ✓		" " Vertical Angle to Tank side Bracket from forward 1/4 len. from stem to Panting Area	6 x 6 x 44 ✓	
" " Third	✓		" " Gussets, spacing and scantling abaft 1/4 len. from stem	14 x 42 CONTINUOUS FL 2 1/2 ✓	
" " from 1/3 len. for'd. to 15% len. from Stem AT PANTING AREA	12 x 3 1/2 x 32.9/105 ✓		" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area	17 x 42 do do ✓	
" " in Peaks, Angle or [8 x 3 1/2 x 35 L TO UPPER DK ✓	FOCSLE ON ALTERNATES	Tank Side Brackets, height above base line at toe of Frame and thickness	95 x 44 ✓	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	3/8 x 6 5/16 & 8 3/32 ✓		INNER BOTTOM PLATING.		
State if Frame Joggled	yes		Breadth and thickness of Middle Line Strake	7 1/4 x 50 ✓	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	yes		Thickness of remainder in Holds	44 52 1/10 HATCHES ✓	
Are the scantlings and arrangements in way of the Bottom Forward 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 ✓	
SINGLE BOTTOM.			BEAMS.		
Floors, Depth and thickness at mid-line in Holds	✓		Uppermost Continuous Deck, amidships in	8 x 3 1/2 x 42 L ✓	
Height of Brackets at side above base line at toe of frame	✓		" " in way of Bridge, Angle, [or]	✓	
Middle Line Keelson, on Floors, Angles, [or]	✓		Spacing	EVERY FRAME ✓	
" " Through Plate or Inter-costal Plate	✓		Second Deck, amidships, Angle, [or]	9 x 3 1/2 x 40 1/2 ✓	38" IN EMPIRE CAMP
" " Foundation Plate on Floors	✓		Spacing	EVERY FRAME ✓	
" " Flat Plate Keel Angles	✓		Third Deck, amidships, Angle, [or]	✓	
Side Keelsons, No. each side	✓		Spacing	✓	
" " thickness of Inter-costal Plate	✓		Fourth Deck, amidships, Angle, [or]	✓	
" " Angles	✓		Spacing	✓	
DOUBLE BOTTOM.			Poop Deck, Angle, [or]	✓	
Solid Floors, thickness and spacing	42 EVERY FRAME ✓		Spacing	✓	
" " Are Frame and Reversed Frame joggled?	yes ✓		Bridge Deck, Angle, [or]	✓	
Bracket Floors, breadth and thickness at middle line	✓		Spacing	✓	
" " breadth and thickness at margin plate	✓		Forecastle Deck, Angle, [or]	6 x 3 x 44 L ✓	9 x 3 1/2 x 42 L ✓
			Spacing	EVERY FRAME ✓	

(MADE IN ENGLAND.)

010652-010661-0027 1/2

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.
PILLARS, No. of Rows	me ✓		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	36 ✓
„ „ „ „ „ „	✓		Thickness of Plating abreast Deck openings in way of Bridge	✓
„ in Holds „ „ „	✓		Thickness of Plating within line of openings...	34 ✓
„ „ „ „ „ „	✓		If Sheathed, material and thickness	✓
Centre Line Bulkhead. TWEEN DECKS { 5x3x.32 0A 8 ✓ 7x3x.38 0A 2 FFE SPACES ✓			Third Deck.	
Stiffeners and Spacing HOLDS { 12x3 1/2 x .60 10 ✓ 9x3 1/2 x .40 0A 2 FFE SPACES ✓			Stringer Plate, breadth and thickness	✓
Plating, thickness of TWEEN DECKS HOLDS { .26 ✓ .30 ✓			If Plated, state thickness	✓
STRINGERS AND DECKS.			Fourth Deck.	
Uppermost Continuous Deck.			Stringer Plate, breadth and thickness	✓
Stringer Plate, breadth and thickness in Wells 65 5/8 x .70			If Plated, state thickness	✓
„ „ „ „ in way of Bridge ✓			Poop Deck.	
„ Angle in Wells 6 x 6 x .60 ✓			Stringer Plate, breadth and thickness	✓
Thickness of Plating abreast Deck openings in way of Wells { .70 & .65			Plating, Sheathing, material and thickness ...	✓
Thickness of Plating abreast Deck openings in way of Bridge { ✓			Bridge Deck.	
Thickness of Plating within line of openings... .40 ✓			Stringer Plate, breadth and thickness	✓
If Sheathed, material and thickness	✓		Plating, Sheathing, material and thickness ...	✓
Second Deck.			Forecastle Deck.	
Stringer Plate, breadth and thickness in Wells 82 3/4 x .38 ✓			Stringer Plate, breadth and thickness	35 x .36 ✓
			Plating, Sheathing, material and thickness... 32, .50 UNDER W/LASS. ✓	

SHELL PLATING.

SCANTLINGS.					RIVETING.				
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.				
	AMIDSHIPS.		FORWARD.	AFT.	State if jogged?	EDGES.		BUTTS.	
	Breadth.	Thickness.	Thickness.	Thickness.		SINGLE OR DOUBLE.	RIVETS.	No. OF ROWS OF RIVETS.	RIVETS.
Flat Plate Keel	54 ✓	.80 ✓	.70 ✓	.73 ✓		DOUBLE ✓	7/8 3 1/4	3R ✓	7/8 4 ✓
„ Dblg. (if any) ✓									
Bottom Plating, No. of Strakes B.C.D. {		.60 ✓	.70 ✓	.52 ✓		do ✓	7/8 3 1/4	4R ✓	7/8 3 1/2
Bilge Plating, No. of Strakes E. {		.64 ✓	.57 ✓	.52 ✓		do	7/8 3 1/4	4R ✓	7/8 3 1/2
Side Plating, No. of Strakes F.G. {		.60 ✓	.45 ✓	.45 ✓		do	7/8 3 1/4	3R ✓	7/8 3 5/32
Upper Deck, Sheer-strake in Wells {	77 1/2 ✓	.73 ✓	.60 ✓	.46 ✓		do	7/8 3 1/4	4R ✓	1 4 ✓
Upper Deck, Sheer-strake in Bridge {	✓								
Strake below Sheer-strake in Wells {	83 1/4 ✓	.65 ✓	.46 ✓	.46 ✓		do	7/8 3 1/4	3R ✓	7/8 3 5/32
Strake below Sheer-strake in Bridge {	✓								
Poop Side Plating	✓								
Bridge Side Plating	✓								
Forecastle Side Plating			.40 ✓			SINGLE ✓	3/4 3	1R ✓	3/4 2 5/8

WATERTIGHT BULKHEADS.

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

FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar		✓		
STEM	ROLLED M.S. 10x2 1/2 ✓			
STERN FRAME { Propeller Post ...	M.S. FABRICATED AS PER			
{ Rudder „ „	APPROVED PLAN		DORMAN LONG & CO ✓	
Speed of Vessel	11 KNOTS ✓			
RUDDER—Type	ORDINARY ✓			
„ A x D	357 ✓			
„ Diam. of head	10 ✓			
„ Mainpiece at top pintle	10 ✓			
„ „ heel ...	7 1/2 ✓			
„ how constructed	FABRICATED ✓			
„ double or single plate coupling, vertical or horizontal	DOUBLE ✓			
	VERTICAL ✓			

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKH'D, Upper 'tween decks	.26 ✓	5x3x.42 0A	30 ✓	✓	✓
„ „ Second „	✓				
„ „ Third „	✓				
„ „ Holds NO. 87	.45-.26	12x3 1/2 x .45L	30		
COLLISION „ (in Hold) NO. 161	.53-.29	10x3 1/2 x .44L	24 ✓	F.P.T.T. 8 2 ✓	
AFTER PEAK „ „ NO. 9	.48-.30	9x3 1/2 x .38L	24 ✓	S.B. BEAMS ✓	
				A.P.T.T. 8 2 S.B.B. ✓	

STEEL.	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)	After Hearth ✓
	Messrs. Cargo Fleet, South Durham, Corsett, Skinningrove, Dorman Long	
	Has the Steel been tested as required by the Rules? yes ✓	

EQUIPMENT No. 40052-75												LETTER 21		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.	lbs.					
44085	1st Bower	68	3	0	✓			53	1	3	14	✓	68	Stockless	W.P. Byers & Co	LPH-S 19-7-43 J.H.
43970	2nd "	68	0	21	✓			52	15	2	14	✓	68	do	do	LPH-S 30-6-43 R.J.V.
23458	3rd "	68	0	0									58 1/2	Ball type		CH 8-4-49 F.W.D.
	Collective weight	204	3	21									194 1/2			
56233	Stream	19	0	7	4	3	21	19	19	2	21		19	Iron Stock	✓	LPH-CH 30-6-43 W.U.N.

Steering Gear, Type (Power ~~or~~ hand) *Dunkin (steam)* ✓ Alternative Means of Steering *Block and tackle from warping winch*

Steering Chains (Size and Test) *Eleomotor* ✓ Windlass *Clarke, Chapman & Co* ✓ Boats *2-24 ft 33 persons
1-27 ft 45 do
1-27 ft (motor) 45 do*

Ceiling in Holds, thickness and material *2 1/2" W.W. at bilges only* ✓ Cargo Battens, thickness, material and spacing *not fitted cleats supplied*

Cargo Hatchways.—(Upper Deck) *Steel plates and angles (recessed)* ✓ Thickness of Hatches *2 7/8" at 1/4", elsewhere 2 3/8" ✓*

Size of Hatchways No. 1 (Fwd.) *31'6" x 20' ✓* No. 2 *31' x 20' ✓* No. 3 *31' x 20' ✓* No. 4 *12'11" x 20' ✓* No. 5 *31' x 20' ✓* No. 6 *31' x 20' ✓*

Number of Shifting Beams } *5 ✓* *5 ✓* *5 ✓* *1 ✓* *5 ✓* *5 ✓*
and/or Fore and Afters }

Builder's Signature *George A. Mack* DIRECTOR.

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 materials and workmanship are good. The double bottom, fore and after peak, and deep tanks have been tested under water pressure and found good. The decks, upper, second & fore-castle, and casings, bulkheads, tunnel and W.C. door have been hose tested and found good. The steering gear, secondary means of steering and windlass have been tested whilst moored in the river. The bilge suction and hand pumps have been tested and found good. No cargo battens have been fitted but cleats supplied.

Hatch covers fitted at second deck except at Nos 1, 6 and fore end of no 4. ✓

Special Survey Fee..... £376.13.6
Specification 94 3 6
Freeboard 18 . .
 Travelling Expenses, if any £ : :
 Received by me, 19.....

(with freeboard)

Signature *R. Wilson*
Surveyor to Lloyd's Register of Shipping.

Date of issue 20/1/44

Character assigned

+100A1 with free board

Chord A + C.P. + LMC 12.43 500 f

Work have

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 VESSELS:-

S.S. "EMPIRE NEWTON"	SUNDERLAND	REPORT NO. 33287
S.S. "EMPIRE STORY"	do	do 33351
S.S. "EMPIRE KEATS"	do	do 33398
S.S. "EMPIRE SOUTHEY"	do	do 33439
S.S. "EMPIRE WEBSTER"	do	do 33504
S.S. "EMPIRE ENJOY"	do	do 33572
S.S. "EMPIRE BARDOLPH"	do	do 33637
S.S. "EMPIRE FRIENDSHIP"	do	do 33695
S.S. "EMPIRE MANOR"	do	do 33745
S.S. "EMPIRE CAMP"	do	do 33812

Upper deck plating, tween deck hatch side girders, hatch end beams, and centreline bulkhead stiffeners at hatch ends increased as per paragraph 2 of Circular M.S. 972/42 ✓

PARTICULARS OF ELECTRIC WELDING (if employed)

W.T. bulkhead stiffener brackets, tank side gussets, and centreline bulkheads welded to tank top; fore and after peak tank top welded to shell, ventilator coaming welded to deck, second deck stringer chocks welded to shell and deck, second deck girder rider plates welded to gusset plates ✓

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

D.F. "Six divisional W.T. bulkheads in tween decks" ✓

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

1st Bower	45-1-14	J.H.J.	5568	16-4-43
2nd "	44-2-21	J.H.J.	5528	29-3-43
3rd "				

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. ✓ ft., Bridge ✓ ft., Forecastle 39.5 ft.

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated. ✓

Official No. 180051 Signal Letters ✓ Extreme Breadth over Belting ✓ Over-all Length 446.5 ✓
(Circ. 1611) (Circ. 1703)

No. and Material of Decks 2 Decks (steel)

Parts of Bottom of Vessel coated with cement or approved composition Cement in double bottom tanks, peak tanks 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.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,	62.0	236	Fore peak tank,	23.5	190
Double bottom, under Engines and Boilers,	46.5	217	After peak tank,	20.0	110
Double bottom, if under Engines only,	✓	✓	Deep tank, aft,	43.91	340 ✓
Double bottom, if under Boilers only,	✓	✓	Deep tank, forward,	14.00	258 ✓
Double bottom, forward,	209.75	839	Other tanks, if fitted, ENGINE ROOM AT SIDES (P) 20.6 (S)	23.25	399 ✓
Total length (if continuous) and Capacity	318.25	1292 ✓	(If necessary furnish further information by sketch.)	✓	

Order for Special Survey No. 6057

Date 25.9.42

Dates of Surveys held while building

1943. Feb. 27. Mar. 19. 26. Apr. 2. 6. 10. May 20. 21. 25. 26. 28. June 2. 3. 4. 8. 9. 16. 17. 21. 29
30. July 1. 8. 10. 12. 16. 19. 21. 22. 26. 30. Aug. 3. 4. 9. 11. 12. 13. 14. Sep. 9. 10. Oct. 4. 6. 11. 13. 14. 26
Nov. 2. 3. 4. 5. 8. 9. 10. 12. 15. 16. 19. 22. 23. 24. 26. 28. 29. 30. Dec. 1. 3. 6. 7. 8. 9. 10. 11. 12. 13.

Total No. of Visits 75