

STEEL STEAMER or MOTORSHIP.

Received at London Office 24 MAY 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*

Date of Completion of report

21-5-43

Port of

West Hartlepool

No. 18415

Survey held at

West Hartlepool

Date First Survey

17th August, 1942,

Last Survey

15th May,

1943

On the

(State if Machinery fitted Aft or Fore)

S.S. "EMPIRE STALWART" (MACHINERY AMIDSHIPS)

State Type

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

complete superstructure without tonnage openings

State Type of Erections

False

TONNAGE under

6571.98

CLASS + 100 A.1.

State if with freeboard

Yes

Built at

West Hartlepool.

Tonnage Deck

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 23-3-42

Yard No. 1147

Total

Breadth (greatest moulded)

B 56'-0"

Builders W^m Gray & Co. Ltd.

Gross Tonnage

7044.60

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'-8"

Owners Ministry of War Transport

Register Tonnage

4845.47

1st Longitudinal Number (L x D) = 15194

Managers Capper, Alexander & Co.

2nd Numeral L x (B + D) = 38994

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

REGISTERED DIMENSIONS.

FEET.

Length

431.5

Breadth

56.2

Depth

35.2

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

23.3

Residence

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

11.27

Port of Registry W. Hartlepool.

Do. Long Bridge to top of keel

Draught Moulded

26'-7 1/2"

If surveyed while building, afloat, or in dry dock

Building afloat & in dry tank.

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 3/8 length amidships to Collision bulkhead	27		" " Reversed Frame		✓
" " in peaks	24		" " Vertical Struts		✓
SIDE FRAMING.	12 3 1/2 9/16	B.A. (ENDS)	Centre Girder, depth and thickness amidships	43 1/4 .54	✓
Frame Amidships, Angle, [or]	12 x 3 1/2 x 3 1/2 x 32.9	LB 6 .60/50	" " top Angles	3 1/2 3 1/2 .48	✓
" " Extends up to 2 nd deck & upper deck alternately			" " bottom Angles	4 4 .54	✓
Reversed Frame Amidships, Angle		✓	Side Girders, No. each side and thickness	1 1.6 3 1/2 .42	✓
" " Extends up to		✓	Margin Plate depth (excl. of flange) and thickness	36 .54	✓
Depth of Framing Girder	12		" " Vertical Angle to Tank side	6 6 .44	✓
Frames in Uppermost Continuous 'tween Decks, Angle, [or]	12 x 3 1/2 x 3 1/2 x 32.9	LB 6 (alt. frs.)	" " Bracket abaft 1/2 len. from stem	6 6 .44	✓
" " Second 'tween Decks, Angle, [or]		✓	" " Vertical Angle to Tank side	6 6 .44	(dbl) ✓
" " Third " " " "		✓	" " Bracket from forward 1/2 len. from stem to Panting Area		
" " from 1/2 len. for'd. to 15% len. from Stem	12 3 1/2 9/16	✓	" " Gussets, spacing and scantling abaft 1/2 len. from stem	continuous .42	✓
" " in Peaks, Angle, [or]	8 3 1/2 .35	✓	" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area	continuous .42	✓
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 3 1/2 7 on 3 3/2 2 6 5/16	bottom on sides	Tank Side Brackets, height above base line at toe of Frame and thickness	94 7/8 .44	✓
State if Frame Joggled	Yes	✓	INNER BOTTOM PLATING.		
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes	✓	Breadth and thickness of Middle Line Strake	71 3/4 .52	✓
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes	✓	Thickness of remainder in Holds	under hatchways .52	✓
SINGLE BOTTOM.			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	✓
Floors, Depth and thickness at mid line in Holds			BEAMS.		
Height of Brackets at side above base line at toe of frame			Uppermost Continuous Deck, amidships	8 3 1/2 20	LB 5 ✓
Middle Line Keelson, on Floors, Angles, [or]			" " in Wells, Angle, [or]		✓
" " Through Plate or Intercoastal Plate			" " in way of Bridge, Angle, [or]		✓
" " Foundation Plate on Floors			Spacing	31	✓
" " Flat Plate Keel Angles			Second Deck, amidships, Angle, [or]	9 3 1/2 .38	✓
Side Keelsons, No. each side			Spacing	31	✓
" " thickness of Intercoastal Plate			Third Deck, amidships, Angle, [or]		✓
" " Angles			Spacing		✓
DOUBLE BOTTOM.			Fourth Deck, amidships, Angle, [or]		✓
Solid Floors, thickness and spacing	Every .42	✓	Spacing		✓
" " Are Frame and Reversed Frame joggled?	Yes	✓	Poop Deck, Angle, [or]		✓
Bracket Floors, breadth and thickness at middle line		✓	Spacing		✓
" " breadth and thickness at margin plate		✓	Bridge Deck, Angle, [or]		✓
			Spacing		✓
			Forecastle Deck, Angle, [or]		✓
			Spacing	27 & 24	✓

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.....		✓	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	none	✓
Centre Line Bulkhead.			Third Deck.		
Stiffeners and Spacing.....	12x3 1/2 x 3 1/2 x 30.9 LBS	60/45	Stringer Plate, breadth and thickness.....	✓	
Plating, thickness of	alternate 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 .65	✓	If Plated, state thickness	✓	
„ „ „ „ in way of Bridge	✓		Poop Deck.		
„ Angle in Wells	6 6 .60	✓	Stringer Plate, breadth and thickness	✓	
Thickness of Plating abreast Deck openings in way of Wells	60 & .55	✓	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	none	✓	Plating, Sheathing, material and thickness ...	✓	
Second Deck.			Forecastle Deck.		
Stringer Plate, breadth and thickness in Wells...	82 3/4 .38	✓	Stringer Plate, breadth and thickness.....	36	✓
			Plating, Sheathing, material and thickness ...	un-sheathed 32	✓

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.					Diam.	Spacing or to cr.	
FLAT PLATE KEEL	54	.80	.70	.70		Double	7/8 3/2	Three	7/8	4	Double old straps & welded butts alternately
„ DBLG. (if any)											
BOTTOM PLATING, No. of Strakes	A B C D	.65 .60 .65 .65	.50 .70 .50	.50		Double	7/8 3/2	Four	7/8	3/2	lapped
BILGE PLATING, No. of Strakes	E	.64	.50	.50		"	7/8 3/2	Four	7/8	3/2	inside straps
SIDE PLATING, No. of Strakes	F G H	.60 .60 .65	.45 .45			"	7/8 3/2	Three	7/8	3 1/2	lapped
UPPER DECK, Sheer-strake in Wells.....	77 1/2	.73	.46	.46		"	7/8 3/2	Four	1	4	lapped
UPPER DECK, Sheer-strake in Bridge ...		✓									
STRAKE BELOW Sheer-strake in Wells.....		.65	.46	.46		Double	7/8 3/2	Three	7/8	3 1/2	lapped
STRAKE BELOW Sheer-strake in Bridge ...		✓									
POOP SIDE PLATING		✓									
BRIDGE SIDE PLATING ...		✓									
FORECASTLE SIDE PLATING			.40			Single	3/4 3	One	3/4	2 5/8	lapped.

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

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

Extending to Upper Deck (Sec. 3 c)

Deck next below

As per Rule

Collision bhd to weather deck, ✓
 6 watertight bhd's to 2nd deck & ✓
 6 divisional W.T. bhd's in tween decks. ✓
 See also page 4 of this spec.

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD, Upper tween decks	.26	5 x 3 x .42 A	.30		
„ „ Second „	✓				
„ „ Third „	✓				
„ „ Holds39	12 x 3 1/2 x 3 1/2 x 32.9 LBS	.30		
COLLISION „ (in Hold)53	12 x 3 1/2 x 3 1/2 x 32.9	.24		
AFTER PEAK „ „	.48	10 x 3 1/2 x 3 1/2 x 38.7	.24		

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar		✓		
STEM		rolled bar		
STERN FRAME { Propeller Post	Forged	10 1/2 x 8	CMEW	
{ Rudder „	cast iron	10 1/2 x 8		
Speed of Vessel		10 1/2		
RUDDER—Type.....		Ordinary		
„ A x D		604		
„ Diam. of head	Forged	11 7/8		
„ Mainpiece at top pintle	cast iron	11 7/8	CMEW	
„ „ heel ...	iron	8 7/8		
„ how constructed		arms keyed to mainpiece		
„ double or single plate coupling, vertical or horizontal	single vertical			

STEEL.

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

Cargo Fleet Iron Co. Ltd. Skinningrove Iron Co. Ltd. Dorman Long & Co. Ltd.
 South Durham S & I Co. Ltd. Consett Iron Co. Ltd. American steel.

Has the Steel been tested as required by the Rules?

Yes

EQUIPMENT No.												LETTER	a	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.	Cwts.			
42908	1st Bower ...	68	0	0	Stockless			52	12	2	0	68	Byers Imp. Stockless	✓	S.D. 30-12-42 R.J. Vogan.
42909	2nd " ...	68	2	0	Stockless			52	18	3	0	68	" " "	✓	S.D. 31-12-42 R.J. Vogan.
	3rd " ...														
	Collective weight.														
55576	Stream	19	1	4	4	3	16	20	1	3	14	19	Ordys, F. Wrot. Iron	✓	C.H. 20-11-42 W.V. Norman

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.		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.	Statu- tory.	Break- ing.	Supplied.		Per Rule.		Length.	Diam.					Length.	Cir.		Length.	Cir.	
	Fathoms.	Ins.	Tons.	Tons.	Cwts.	qrs.	lbs.	Cwts.	Fathoms.	Ins.					Fathoms.	Ins.	Tons.	Fathoms.	Ins.	
3304	225	2 ⁵ / ₁₆	96 ¹ / ₄	134 ¹ / ₄	607	0	7	500 ⁵ / ₈	225	2 ⁵ / ₁₆	Stud	✓	N. 6-4-42 ¹ / ₂ Relf.	TOWLINE...	120	4 ³ / ₄	64.6	120	4 ³ / ₄	
								for 225 fathom			Emergency requirements.			HAWSERS & WARPS }	2-90	2 ³ / ₄	15.2	2-90	2 ³ / ₄	
														"	2-90	2 ¹ / ₂	13.2	2-90	2 ¹ / ₂	
Less Stream Chain Steel Wire }	90	5			70.9				90	5	6/24			"						

Steering Gear, Type (Power or hand) *Dorbin & Co. Steam with telemotor gear.* Alternative Means of Steering *Blocks & tackle to winch*
 Steering Chains (Size and Test) *✓* Windlass *Emerson Walker & Co* *Boats 2-24.0' x 7.5' x 3.00'*
 Ceiling in Holds, thickness and material *2 1/2" wood over bilges* Cargo Battens, thickness, material and spacing *large battens not fitted*
 Cargo Hatchways.—(Upper Deck) *Steel plates & angles* Thickness of Hatches *2 1/2" (3" at cross bunker)*
 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 and/or Fore and Afters *5* *5* *5* *1* *5* *5*

Builder's Signature

FOR WILLIAM GRAY & CO. LIMITED.

Thos. S. Simpson

GENERAL MANAGER.

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 *No*
 (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 constructed in accordance with the approved plans, the Secretary's letters and the specification (amended) and generally conforms with the Society's Rules for the class contemplated. The materials & workmanship are good. All double bottom tanks, peak tanks & deep tanks forward, aft & in machinery space, have been tested as required by the Rules & found satisfactory. The weather decks, watertight bulkheads, tunnel, & the divisional watertight bulkheads in 'tween decks, have been satisfactorily tested. The assigned freeboards have been marked on the vessels sides, verified & cut in. The windlass & steering gears have been satisfactorily tested under working conditions.

The amount of Entry Fee £ 10 : 0 : 0

Fees applied for,

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

Special Survey Fee... £ 470 : 2 : 11

Received by me,

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

Travelling Expenses, if any £ 18 : 0 : 0

19.

with freeboard.

State whether the Vessel has been built under Special Survey *Yes*

Signature *E. Lee*

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to *W. HPL.*

Date of issue *11/6/43*

Committee's Minute

FRI. 28 MAY 1943

Character assigned

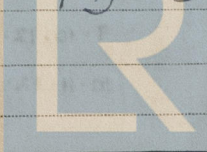
+ 100 A1

with freeboard

Lloyd's A & C.P.

+ LMC 5.43
FD CH

Write the



Lloyd's Register Foundation

0060272

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.)

Forging reports are enclosed. This vessel is of the fabricated "B" type design similar to the "Empire Powers" (Wm Gray & Co No 1142) & previous vessels.

Pre-fabricated material was supplied as follows:—

Keel & centre girder supplied by Messrs. Reppath Brown & Co. Ltd, Floors by Wm Baird & Son, Bulkheads, shell plates, frames & deck girders by Motherwell Bridge & Eng Co Ltd., Tank margins, brackets & gussets by Cleveland Bridge & Eng Co. Ltd., Boat deck & side houses, deck beams, saloon & bridge deckhouse, tunnel, upper deck stringer angles, strong beams & side webs by Palmers Hebburn Co. Ltd., Hatch coamings by B & W. Walker Ltd., Coal & escape hatches, cabin store bulkheads by C. G. & J. Keay Ltd., Tank top plating by P & W MacKellan Ltd., Upper & 2nd deck plating by Sir Wm Arrol & Co Ltd., Pocket bunkers by A & J Main Ltd., Bulb angle intercostals & intercostals in machy. space by Brownlie & Murray Ltd., Hatch webs by Fleming Bros. Ltd., Engine & Boiler casings by Robert Gempster & Sons Ltd., Water tanks by Frederick Braby & Co Ltd.

Closing of openings in divisional watertight bulkheads in 'tween decks:— The access & tonnage openings in bulkheads 133, 109, 57 & 34 are ^{closed} by riveted watertight plates. The openings in bulkheads 14 & 87 are closed by hinged watertight steel doors operated from both sides.

PARTICULARS OF ELECTRIC WELDING (if employed) alternate keel & centre girders butts welded by fabricators. Bilge keel welded to shell. Bulkhead stiffener brackets welded to tank top. Chock plates between frames amidships welded to 2nd deck stringer Tunnel butts & stiffeners welded. Gusset plates amidships welded to tank margins all welding carried out with approved electrodes.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book cruiser stern. Lloyds A & C.P. Two decks. D.F. Cargo battens not fitted. Notation about equipment. E.S.D. with freeboard. Collision bulkhead to weather deck. 6 bulkheads to 2nd deck 6 divisional watertight bulkheads in 'tween decks.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	weight incl pins	Surveyor	No of test	Date of test
	2nd "	43-3-0	J.H.J.	5202	23-9-42
	3rd "	45-2-14	J.H.J.	5194	17-9-42

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. ☒ ft., Bridge ☒ ft., Forecastle ^{39'5" ft.} _{on upper deck}

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated
Official No. 168956 Signal Letters ☒ Extreme Breadth over Belting ☒ Over-all Length 446'-4" _{(Circ. 1611) (Circ. 1703)}

No. and Material of Decks Two decks - steel

Parts of Bottom of Vessel coated with cement or approved composition Fore & aft peak tanks & double bottom under boilers cemented. Remainder of tanks, cement fillets

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.
No 7 d. b. tanks only (No 8 d. b. tank)	Feet.	S.W. Tons.		Feet.	S.W. Tons.
Double bottom, aft, is included in deep tank aft.	62.0	226	Fore peak tank,	21.50	119
Double bottom, under Engines and Boilers,	46.5	217	After peak tank,	18.00	112
Double bottom, if under Engines only,			Deep tank, aft,	49.08	345
Double bottom, if under Boilers only,			Deep tank, forward,	14.00	248
Double bottom, forward,	209.7	821	Other tanks, if fitted, Wing tanks in machy space ^{Port Starboard}	23.25	398
Total length (if continuous) and Capacity	318.2	1264	(If necessary, furnish further information by sketch.)		1222

Order for Special Survey No. 2463

Date 18/9/42.

Dates of Surveys held while building

1942. Aug. 17. 21. Sept. 7. 9. 21. 24. Oct. 16. 9. 13. 16. 19. 20. 22. 27. 31. Nov. 2. 3. 6. 9. 10. 17. 23. Dec. 2. 7. 10. 16. 31. 1943. Jan. 5. 7. 11. 15. 21. 25. 26. 28. Feb. 9. 9. 10. 12. 16. 17. 22. 25. 27. March 1. 4. 8. 9. 10. 12. 15. 16. 17. 19. 20. 22. 23. 26. 31. April 1. 5. 6. 7. 8. 9. 13. 16. 19. 20. 21. 23. 30. May 3. 4. 5. 6. 7. 10. 11. 12. 13. 14. 15.

Total No. of Visits 85