

STEEL STEAMER ~~OR MOTORSHIP~~

Received at London Office

12 MAR 1942

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

7:3:42

Port of GLASGOW

No. 65180

Survey held at

GRANGEMOUTH

Date First Survey

31st January 1941

Last Survey

20th February 1942

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

Steel Single Screw Steamer "EMPIRE CADET"

Machinery Aft

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

Full Scantling

State Type of Erections

Long Poop, Trunk and Forecastle

TONNAGE under Tonnage Deck

536.09

CLASS + 100 A.1. Carrying Petroleum in Bulk

No.

Built at Grangemouth

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)

FEET.

L 190.0

Launched 22nd September '41 Yard No. 436

Total

536.09

Breadth (greatest moulded)

B

30.5

Builders The Grangemouth Dockyard Co. Ltd.

Gross Tonnage

813.11

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

D

14.0

Owners The Ministry of War Transport

Register Tonnage

332.93

1st Longitudinal Number (L x D)

= 2660

Managers Bulk Oil Steamship Co. Ltd.

(Where necessary to be entered in Reg. Book)

2nd Numeral L x (B + D)

= 8455

Residence 130/136 Minories, London, E.C.3.

REGISTERED DIMENSIONS.

FEET.

Length

193.0

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

13.57

Port of Registry Grangemouth

Breadth

30.7

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

Do. Long Bridge to top of keel

Draught Moulded 13.05

If surveyed while building, afloat, or in dry dock

Both

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.
Longitudinal Framing as per Page 5			Bracket Floors, Frame		
FRAMES, Spacing amidships	22½	✓	" " Reversed Frame		
" " from 85 to frame 87	18	✓	" " Vertical Struts		
" " from 87 to Collision bulkhead	22½	✓	Centre Girder, depth and thickness in E. Space	45½ x .38	✓
" " in peaks	22	✓	" " top Angles	3½ 3½ .34	Dble ✓
SIDE FRAMING.			" " bottom Angles	3½ 3½ .38	Dble ✓
Frame Amidships, Angle E or F	7 3 .33	✓	Side Girders, No. each side and thickness	One .28	✓
" " in way of transverse	9 3½ .38	✓	Margin Plate depth (excl. of flange) and thickness		
" " Extends up to	Upper Deck	✓	" " Vertical Angle to Tank side		
Reversed Frame Amidships, Angle			" " Bracket abaft ½ len. from stem		
" " Extends up to			" " Vertical Angle to Tank side		
Depth of Framing Girder			" " Bracket from forward ½ len. from stem to Panting Area		
Frames in Uppermost Continuous tween Decks, Angle, E or F			" " Gussets, spacing and scantling abaft ½ len. from stem		
" " Second tween Decks, Angle, E or F			" " Gussets, spacing and scantling from forward ½ len. from stem to Panting Area		
" " Third " " " "			Tank Side Brackets, height above base line at toe of Frame and thickness	None	✓
" " from 11 to 15% len. from Stem	7 3 .40	✓	INNER BOTTOM PLATING, in E. Space		
" " in Peaks, Angle E or F	5 3 .35	✓	Breadth and thickness of Middle Line Strake	96 x .75	✓
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	¾ at 4½	✓	Thickness of remainder in Hold	.34	✓
State if Frame Joggled	Yes	✓	Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & D. space and framing in Boiler and Boiler Room?	Yes	✓
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes	✓	BEAMS.		
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes	✓	Uppermost Continuous Deck, amidships in Wells, Angle, E or F		
SINGLE BOTTOM, in Boiler Space			" " in way of Bridge, Angle, E or F	5 3 .32	✓
Floors, Depth and thickness at mid-line in Hold	24 x .40	✓	Spacing	Every frame	✓
Height of Brackets at side above base line at toe of frame	None	✓	Second Deck, amidships, Angle, E or F		
Middle Line Keelson, on Floors, Angles, E or F	4 4 .42	Dble ✓	Spacing		
" " Through Plate	.48	✓	Third Deck, amidships, Angle, E or F		
" " Foundation Plate on Floors	12 x .48	✓	Spacing		
" " Flat Plate Keel Angles	3½ 3½ .42	Dble ✓	Fourth Deck, amidships, Angle, E or F		
Side Keelsons, No. each side	One	✓	Spacing		
" " thickness of Intercoastal Plate	.40	✓	Poop Deck, Angle, E or F	5 3 .28	✓
" " Angles	4 4 .42	Dble ✓	Spacing	Every frame	✓
DOUBLE BOTTOM, in Engine Space			Bridge Deck, Angle, E or F		
Solid Floors, thickness and spacing	.28 every frame	✓	Spacing		
" " Are Frame and Reversed Frame joggled?	Frames only	✓	Forecastle Deck, Angle, E or F	5 3 .32	✓
Bracket Floors, breadth and thickness at middle line			Spacing	Every frame	✓
" " breadth and thickness at margin plate					

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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				
„ „ „ „ „					Thickness of Plating abreast Deck openings in way of Bridge				
„ in Holds „ „					Thickness of Plating within line of openings				
„ „ „ „ „					If Sheathed, material and thickness				
Centre Line Bulkhead.					Third Deck.				
Stiffeners and Spacing.....	9	3½	38 BA	On every frame	Stringer Plate, breadth and thickness				
„ „ „ „ „	10	3½	40 BA		If Plated, state thickness				
Plating, thickness of	35	and	30		Fourth Deck.				
STRINGERS AND DECKS.					Stringer Plate, breadth and thickness				
Uppermost Continuous Deck.					If Plated, state thickness				
Stringer Plate, breadth and thickness in Wells	54½	x	40		Poop Deck.				
„ „ „ „ „					Stringer Plate, breadth and thickness	69	x	30	- 25
„ „ „ „ „					Plating, Sheathing, material and thickness	25	- 1½	x ¾	Composition in accommodation
„ Angle in Wells	5	5	40		Bridge Deck, Trunk Top.				
Thickness of Plating abreast Deck openings in way of Wells					Stringer Plate, breadth and thickness	65	x	35	
Thickness of Plating abreast Deck openings in way of Bridge Poop					Plating, Sheathing, material and thickness	40			
Thickness of Plating within line of openings					Forecastle Deck.				
If Sheathed, material and thickness					Stringer Plate, breadth and thickness	30			
Second Deck.					Plating, Sheathing, material and thickness	30			
Stringer Plate, breadth and thickness in Wells									

SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged? <i>No</i>			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.	Inches.	
FLAT PLATE KEEL	54 ✓	55 ✓	55 ✓ 51 ✓	55 ✓ 51 ✓	End Plates Approved 44 at ends ✓	Double ✓	7/8	3-2 ✓	3 ✓	7/8	3 1/2 ✓	Lapped ✓
„ BELG. (if any)												
BOTTOM PLATING, No. of of Strakes 2		45 ✓	A 44 B 40 ✓	33 ✓	Approved 40 amidships ✓	Double ✓	3/4	2.5 in oil 3 clear of oil ✓	3 - 2 ✓	3/4 ✓	2 5/8 ✓	Lapped ✓
BILGE PLATING, No. of Strakes 1		40 ✓	37 ✓	33 ✓		Double - Single	3/4	"	3 - 2 ✓	"	"	"
SIDE PLATING, No. of Strakes												
UPPER DECK, Sheer- strake in Well 1		40 ✓	37 ✓						3 - 2 ✓	3/4 ✓	2 5/8 ✓	Lapped ✓
UPPER DECK, Sheer- strake in Bridge ...			60 at Poop front	40 - 33 ✓		Single	3/4	3-2-3	3 - 2 ✓	3/4 ✓	2 5/8 ✓	Lapped ✓
STRAKE BELOW Sheer- strake in Well 1		40 ✓	37 ✓			Double - Single	3/4	2.5 in oil 3 clear of oil ✓	3 - 2 ✓	3/4 ✓	2 5/8 ✓	"
STRAKE BELOW Sheer- strake in Bridge ...		40 ✓		33 ✓		"	"	"	3 - 2 ✓	"	"	"
POOP SIDE PLATING				38 - 25 ✓					2 - 1 ✓	"	"	"
BRIDGE SIDE PLATING ...												
FOREC'TLE SIDE PLATING			25 ✓			Single	3/4	3	1 ✓	"	"	"

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel	9
Extending to Upper Deck (Sec. 3 c)	6
„ Upper Deck next below	3
As per Rule	Approved

FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar				
STEM				
STERN FRAME { Propeller Post				
{ Rudder				
Speed of Vessel				
RUDDER—Type				
„ A x D				
„ Diam. of head				
„ Mainpiece at top pintle				
„ „ heel				
„ how constructed				
„ double or single plate				
„ coupling, vertical or horizontal				

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD, Upper tween decks					
„ „ Second „					
„ „ Third „					
„ „ Holds	35	9 x 3½	38 BA	28½	16 x 35
COLLISION „ (in Hold)	40-30	7 x 3	38 BA	24	Deep Tank Hat
AFTER PEAK „ „	42-30	8 x 3	35 BA	24	None

STEEL.

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

Appley - Frodingham Steel Co. Ltd.; Steel Company of Scotland, Ltd.; Colvilles, Ltd.; Cargo Steel Iron Co.

Has the Steel been tested as required by the Rules?

Yes

Lloyd's Register Foundation

PARTICULARS OF LONGITUDINAL FRAMING.

FRAMING.		AMIDSHIPS.			ENDS.			Any Departure from Approved Plans to be Noted.	RIVETING.					
		In Ship.			In Ship.				Rivets in Longitudinal Frames.		Spacing of Rivets on each side of Transverses and Bulkheads. Inches.	Rivets in Brackets to Bulkheads.		
		Ins.	Ins.	Ins.	Ins.	Ins.	Ins.		Diam.	Speng.		Number.	Diameter.	
Framing of $\angle, L \text{ \& } K$														
Frames in Bridge between Decks ...														
Frames from Uppermost Continuous Deck No. 1		10	3½	40	10	3½	40 ✓		¾	4½	3½ for 8 rivets	12	7/8 ✓	
" 2		"	"	"	"	"	" ✓		"	"	" 8 "	"	"	
" 3		"	"	"	"	"	" ✓		"	"	" 8 "	"	"	
" 4		"	"	"	"	"	"		"	"	" 8 "	"	"	
" 5							✓ 9 x 3½ x 38 in		"	"	" 8 "	"	"	
" 6							Nº 1 Tank.				9 in Pumproom	✓ 9 in vertical		
" 7												arm.		
" 8														
" 9														
" 10														
" 11														
" 12														
" 13														
" 14														
" 15														
" 16														
Spacing of Longitudinal Frames		Amidships 28½			At Ends 28½									
Double Bottoms		Tank Top Longitudinals												
" " " "		Bottom												
Spacing of Longitudinals		Amidships												
" " " "		At Ends												
Transverses.														
Side (in 'tween Decks)		Depth and Thickness												
" " " "		Face Angles												
" " " "		Lugs to Shell*												
Side (in Hold)		Depth and Thickness												
" " " "		Face Angles												
" " " "		Lugs to Shell*												
Bottom		Depth and Thickness			29 40									
" " " "		Face Angles			5 5									
" " " "		Lugs to Shell*			6 6 36 6 6 36				¾	3½				
" " " "		" " Back Bars												
" " " "		Brackets			35" 41.4" 35" 41.4"									
Spacing of Transverse Frames		9' 4½" and 7' 6"			9' 4½" and 7' 6"									
" " " "		* 30" in Nº 1 Tank 41.4"												
Longitudinal Beams of $\angle, L \text{ \& } K$		Tank Top Bridge Deck			7 3 33 7 3 33			Spacing. 28½	Transverse Beams.	Plate. 11 x 35	Face 4	Any Departure from Approved Plans to be Noted.		
" " " "		Upper			" " " " " "			28½		17½ x 40	5			
" " " "		Second												
" " " "		Third												

The particulars of framing in peaks (if ordinary), Floors, Centre Girder, Side Girders and Margin Plate and their angle attachments, etc., to be entered in their respective places provided for on the Report Forms.

NOTE:—This slip to be pasted on the fourth page of the Report, and reference to same to be made under framing, etc., on the first page.

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.)

This vessel is similar to the S.S. "EMPIRE LASS", Grangemouth Dockyard Co. Ltd. N° 435, Glasgow Report N° 64794.

The following plans are forwarded with the Report :-

- Profile and Decks.
- Rudder and Sternframe
- Yank Top in way of Engine Room.
- Riveting List.
- Girders in Oil Tanks.
- Fore End Framing.
- Oil Fuel Bunkers and N° 1 Tank.
- O.T. Trans. Bulkheads and Oil Bunker Bulkheads.
- Break of Shell at Poop Front.
- After End Framing.

Plan of Midship Section, as built, forwarded in advance.

The following Forging Reports are enclosed :-

- Rudder
- Sternframe
- Tiller
- Quadrant.

This vessel is to be engaged as a Water Carrier in the Tropics and to fit her for this work the main cargo tanks have all been coated internally with cement wash.

PARTICULARS OF ELECTRIC WELDING (if employed) Butts and seams of inner bottom plating in engine room; heels of side frames in engine room to inner bottom; floors and reversed frames to inner bottom plating in engine room in way of heels of side frames; boat deck plating to machinery casings and minor details.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Longitudinal framing at bottom and at deck.

Lloyd's A and C.P. Machinery Aft.

(One bower anchor and 30 fathoms of cable to supply).

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

1st Bower	12 3 0	J.T.	3421	31.8 40
2nd "	12 3 14	J.T.	3647	28.10 40
3rd "				

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 65.82 ft., ^{Trunk} 101.6 ft., Bridge — ft., Forecastle 22.1 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

Official No. 168795 Signal Letters Extreme Breadth over Belting ^{Steel} amidships 30.10" Over-all Length 202.3" (Circ. 1611) " belting in way of poop 31.9 1/2 (Circ. 1703)

No. and Material of Decks 1 steel
Parts of Bottom of Vessel coated with cement ~~or approved composition~~ Peaks, Double Bottom in Engine Room, Boiler Room, Pumproom and Deep Tank Forward.

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,	13.2	15.4
Double bottom, under Engines and Boilers,			After peak tank,	13.3	25.8
Double bottom, if under Engines only,	20.6	27	Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,	16.1	42.6
Double bottom, forward,			Other tanks, if fitted, after cofferdam.	3.0	40.2
Total length (if continuous) and Capacity	20.6	27	(If necessary, furnish further information by sketch.)		

Order for Special Survey No. 6567

Date 5.2.41

Dates of Surveys held while building

1941 Jan 31 Mar 19.24.28.31 Apr 1.3.7.10.14.16.22.30 May 2.13.16.28 June 4.6.9.18.25
July 1.8.14 Aug 4.8.13.14.15.19.20.22.25.27.29 Sep 1.3.5.10.19.22.30 Oct 10.19.23
(1942) Jan 13.26.27.28 Feb 2.4.5.6.9.12.13.14.16.19.20

Lloyd's Register
Foundation

Total No. of Visits 61