

# REPORT ON MACHINERY.

No. 41254

WFD. 3 AUG. 1921

Date of writing Report 28/7/21 When handed in at Local Office 29-7-21 Port of Glasgow  
 Received at London Office  
 No. in Survey held at Reg. Book. Glasgow Date, First Survey 2-7-20 Last Survey 27-7-21  
 on the (Number of Visits 14)

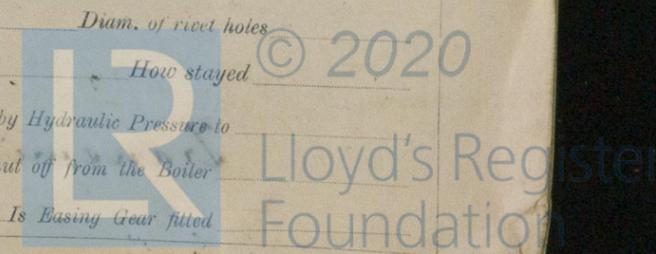
Master \_\_\_\_\_ Built at \_\_\_\_\_ By whom built \_\_\_\_\_ Tons } Gross  
 Engines made at Glasgow By whom made Fairfield STEEL CO. 607 } Net  
 Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ When built \_\_\_\_\_  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ when made \_\_\_\_\_  
 Nom. Horse Power as per Section 28 \_\_\_\_\_ Port belonging to \_\_\_\_\_  
 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 24-44 1/2-46 Length of Stroke 54 Revs. per minute \_\_\_\_\_ Dia. of Screw shaft \_\_\_\_\_ Material of screw shaft S  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight in the propeller boss Yes If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive \_\_\_\_\_ If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_  
 Dia. of Tunnel shaft \_\_\_\_\_ Dia. of Crank shaft journals \_\_\_\_\_ Dia. of Crank pin 1 1/4 Length of stern bush \_\_\_\_\_  
 collars Dia. of screw \_\_\_\_\_ Pitch of Screw \_\_\_\_\_ No. of Blades \_\_\_\_\_ State whether moveable \_\_\_\_\_ Total surface \_\_\_\_\_  
 No. of Feed pumps 2 Diameter of ditto 5" Stroke 20" Can one be overhauled while the other is at work \_\_\_\_\_  
 No. of Bilge pumps 2 Diameter of ditto 5" Stroke 20" Can one be overhauled while the other is at work \_\_\_\_\_  
 No. of Donkey Engines \_\_\_\_\_ Sizes of Pumps \_\_\_\_\_ No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_  
 In Engine Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_

No. of Bilge Injections \_\_\_\_\_ sizes \_\_\_\_\_ Connected to condenser, or to circulating pump \_\_\_\_\_ Is a separate Donkey Suction fitted in Engine room & size \_\_\_\_\_  
 Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses in Engine room always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_  
 Are all connections with the sea direct on the skin of the ship \_\_\_\_\_ Are they Valves or Cocks \_\_\_\_\_  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the Discharge Pipes above or below the deep water line \_\_\_\_\_  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
 What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges \_\_\_\_\_  
 Is the Screw Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

**BOILERS, &c.**—(Letter for record \_\_\_\_\_) Manufacturers of Steel \_\_\_\_\_  
 Total Heating Surface of Boilers \_\_\_\_\_ Is Forced Draft fitted \_\_\_\_\_ No. and Description of Boilers \_\_\_\_\_  
 Working Pressure \_\_\_\_\_ Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_  
 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to each boiler \_\_\_\_\_  
 Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_  
 Smallest distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_  
 Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Are the shell plates welded or flanged \_\_\_\_\_ Descrip. of riveting: cir. seams \_\_\_\_\_  
 long. seams \_\_\_\_\_ Diameter of rivet holes in long. seams \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plates or width of butt straps \_\_\_\_\_  
 Per centages of strength of longitudinal joint \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell \_\_\_\_\_  
 Size of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter \_\_\_\_\_  
 Length of plain part \_\_\_\_\_ Thickness of plates \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ No. of strengthening rings \_\_\_\_\_  
 Working pressure of furnace by the rules \_\_\_\_\_ Combustion chamber plates: Material \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
 Pitch of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ Working pressure by rules \_\_\_\_\_  
 Material of stays \_\_\_\_\_ Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam space: \_\_\_\_\_  
 Material \_\_\_\_\_ Thickness \_\_\_\_\_ Pitch of stays \_\_\_\_\_ How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_  
 Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom \_\_\_\_\_  
 Thickness \_\_\_\_\_ Material of Lower back plate \_\_\_\_\_ Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules \_\_\_\_\_  
 Diameter of tubes \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Material of tube plates \_\_\_\_\_ Thickness: Front \_\_\_\_\_ Back \_\_\_\_\_ Mean pitch of stays \_\_\_\_\_  
 Pitch across wide water spaces \_\_\_\_\_ Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and \_\_\_\_\_  
 Thickness of girders at centre \_\_\_\_\_ Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_  
 Working pressure by rules \_\_\_\_\_ Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_  
 Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_  
 Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

**SUPERHEATER.** Type \_\_\_\_\_ Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_  
 Date of Test \_\_\_\_\_ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_  
 Diameter of Safety Valve \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_



# Report

Date of writing  
 No. in Reg. Book. *78434* on  
 Tonnage { Gross  
 Net  
 Registered Horse Power  
 No. of Main Boilers  
 No. of Donkey Boilers  
 Steam Pressure in Main Boilers  
 in Donkey Boilers  
 Last Report Particulars  
 (Periodical Surveys, cause of Repairs, account of Damage besides being details dates and initials)

In damage cases declined?   
 Did the Surveyor pers  
 Do.  
 If this was not done,  
 And what parts of the  
 Also what special mea  
 Surveyor to assure h  
 Did the Surveyor exam  
 Did the Surveyor exam  
 Did the Surveyor exam  
 Did the Surveyor exam  
 Is screw shaft now  
 Is shaft now been ch  
 Is the shaft now fitted  
 Is the distance betw  
 Is the Survey is not com

Vessel  
 Propeller  
 examination

General Observ  
 (State clearly what all  
 any alteration  
 140 lb., F.D., &c.  
 been in

General Observ  
 (State clearly what all  
 any alteration  
 140 lb., F.D., &c.  
 been in

Fee (per Section 28)  
 Damage or Repair Fee (per Section 28.)  
 Expenses (if charge  
 Committee's Min  
 gned

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

*[A large diagonal line is drawn across the page, indicating that no spare gear was supplied.]*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
 During progress of work in shops --- *1920. July 2. Nov. 1. 2. 11. 16. 25. Dec 2. 1921 Jan 24. Feb 25. 28. Mar 21.*  
 During erection on board vessel --- *Apr 25. July 27.*  
 Total No. of visits *14.*

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods  
 Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller  
 Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts  
 Completion of pumping arrangements Boilers fixed Engines tried under steam  
 Completion of fitting sea connections Stern tube Screw shaft and propeller  
 Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft **S** Identification Mark on Do. *(4800)* Material of Thrust shaft **S** Identification Mark on Do. *(1870)*  
 Material of Tunnel shafts **S** Identification Marks on Do. *(4800)* Material of Screw shafts **S** Identification Marks on Do. *(1870)*  
 Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with.

Is this machinery duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines were intended to be built by Messrs The Fairfield Shipbuilding & Engineering Co. Ltd. but the order for the same has now been cancelled. Castings & forgings have been supplied as per attached list some of which have been partly completed & the same have been forwarded to Messrs W. Doxford & Sons Ltd. Sunderland & the Fairfield Co. do not know if these engines will be completed by Messrs Doxford or under Survey. The workmanship & material as far as seen are of good quality.*

*J.C. 29.7.21*

Certificate (if required) to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : :  
 Special ... £ 10 : :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, *1.8.21.*  
 When received, *16.8.21.*

*W. Gordon - Musclevi*  
 Engineer Surveyor to Lloyd's Register of Shipping.

GLASGOW  
 Committee's Minute *2 - AUG 1921*

FRI. 25 AUG. 1921

Assigned *Transmit to London*



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