

REPORT ON MACHINERY.

No. 17953

Received at London Office

Date of writing Report 17 Jan 1922 When handed in at Local Office 28 Jan 1922 Port of Greenwich WED 1 FEB. 1922

No. in Survey held at Port Glasgow Date, First Survey 27th Dec. 1920 Last Survey 26th January 1922
Reg. Book. on the Steel Steamer "Ousel" (Number of Visits 62)

Master Built at Port Glasgow By whom built Jergerson Bros Ltd Tons { Gross 1539 Net 647 When built 1922

Engines made at Port Glasgow By whom made Jergerson Bros Ltd when made 1922

Boilers made at Port Glasgow By whom made Clyde & Co Ltd when made 1922

Registered Horse Power Owners Cork Steamship Co. Ltd. Port belonging to London

Nom. Horse Power as per Section 28 273 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 20 1/2 - 34 - 57 Length of Stroke 39 Revs. per minute 84 Dia. of Screw shaft 11 1/2 as per rule 12 1/2 as fitted Material of screw shaft Steel

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 no 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 no If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 49 1/2

Dia. of Tunnel shaft 10 5/8 as per rule 10 5/8 as fitted Dia. of Crank shaft journals 11 0/7 as per rule 11 0/7 as fitted Dia. of Crank pin 11 7/8 Size of Crank webs 21 - 6 1/2 Dia. of thrust shaft under collars 11 1/8 Dia. of screw 14 - 6 Pitch of Screw 15 - 0 No. of Blades 4 State whether moveable no Total surface 77 1/4

No. of Feed pumps two Diameter of ditto 6 Stroke 15 Can one be overhauled while the other is at work yes

No. of Bilge pumps two Diameter of ditto 3 1/2 Stroke 20 Can one be overhauled while the other is at work yes

No. of Donkey Engines two Sizes of Pumps 9 - 8 - 5 - 8 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room three 2 1/2 In Holds, &c. two 2 1/2

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible no

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line no

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

What pipes are carried through the bunkers no How are they protected no

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Port Glasgow

BOILERS, &c.—(Letter for record S) Manufacturers of Steel W. Beardmore & Co.

Total Heating Surface of Boilers 3904 Is Forced Draft fitted yes No. and Description of Boilers two single ended

Working Pressure 185 lbs Tested by hydraulic pressure to 330 lbs Date of test 17 - 25/11/21 No. of Certificate 1591 - 1592

Can each boiler be worked separately yes Area of fire grate in each boiler 5 1/2 sq ft No. and Description of Safety Valves to each boiler two spring Area of each valve 7.07 sq Pressure to which they are adjusted 190 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18 Mean dia. of boilers 36 Length 36 Material of shell plates steel

Thickness 3/16 Range of tensile strength 45,000 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams no

long. seams yes Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 2 1/2 Lap of plates or width of butt straps 1 1/2

Per centages of strength of longitudinal joint 85 Working pressure of shell by rules 185 Size of manhole in shell 18

Size of compensating ring 18 No. and Description of Furnaces in each boiler one Material steel Outside diameter 36

Length of plain part 36 Thickness of plates 3/16 Description of longitudinal joint butt No. of strengthening rings no

Working pressure of furnace by the rules 185 Combustion chamber plates: Material steel Thickness: Sides 3/16 Back 3/16 Top 3/16 Bottom 3/16

Pitch of stays to ditto: Sides 18 Back 18 Top 18 If stays are fitted with nuts or riveted heads no Working pressure by rules 185

Material of stays steel Area at smallest part 18 Area supported by each stay 18 Working pressure by rules 185 End plates in steam space: no

Material steel Thickness 3/16 Pitch of stays 18 How are stays secured by nuts Working pressure by rules 185 Material of stays steel

Area at smallest part 18 Area supported by each stay 18 Working pressure by rules 185 Material of Front plates at bottom steel

Thickness 3/16 Material of Lower back plate steel Thickness 3/16 Greatest pitch of stays 18 Working pressure of plate by rules 185

Diameter of tubes 3 Pitch of tubes 18 Material of tube plates steel Thickness: Front 3/16 Back 3/16 Mean pitch of stays 18

Pitch across wide water spaces 18 Working pressures by rules 185 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 18

Length as per rule 18 Distance apart 18 Number and pitch of stays in each 18

Working pressure by rules 185 Steam dome: description of joint to shell butt % of strength of joint 85

Diameter 18 Thickness of shell plates 3/16 Material steel Description of longitudinal joint butt Diam. of rivet holes 1 1/8

Pitch of rivets 2 1/2 Working pressure of shell by rules 185 Crown plates no Thickness 3/16 How stayed no

SUPERHEATER. Type no Date of Approval of Plan no Tested by Hydraulic Pressure to no

Date of Test no Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler no

Diameter of Safety Valve no Pressure to which each is adjusted no Is Easing Gear fitted no

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— The top end bolts. The bottom end bolts. Two main bearing bolts. One set coupling bolts. One set dead pump valves. One set Bilge pump valves. Bolts nuts etc

The foregoing is a correct description,

FERGUSON BROTHERS (Port-Glasgow) LTD.

J. Ferguson DIRECTOR, Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1920 Dec. 27-31 1921 Jan 28 Feb 17-24 Mar 1-11 15-18 Apr 12-21 27 May 26 Jun 1-2 13-20 23-29 July 13-20 26 Aug 10-15 22 29 Sep 1-7 12-14 21-22 26-29 Oct 3-10 13-19 20-24 31 Nov 8-14 17-22 25-29 Dec 6-8 9-10 13-16 21-26 28-30 1922 Jan 11-18 26 } Total No. of visits 62.

Is the approved plan of main boiler forwarded herewith? Yes

Is the approved plan of main boiler forwarded herewith? " " " donkey " " "

Dates of Examination of principal parts—Cylinders 2/6/21 Slides 2/6/21 Covers 1/6/21 Pistons 2/6/21 Rods 26/7/21 Connecting rods 26/7/21 Crank shaft 21/9/21 Thrust shaft 21/9/21 Tunnel shafts 13/10/21 Screw shaft 13/10/21 Propeller 7/9/21 Stern tube 3/10/21 Steam pipes tested 9/12/21 14/12/21 Engine and boiler seatings 20/10/21 Engines holding down bolts 14/11/21 Completion of pumping arrangements 14/11/21 Boilers fixed 9/12/21 Engines tried under steam 26/1/22 Completion of fitting sea connections 10/10/21 Stern tube 10/10/21 Screw shaft and propeller 20/10/21 Main boiler safety valves adjusted 21/12/21 Thickness of adjusting washers Port 2 3/4 S 9/32. Starboard 2 1/2 S 9/32. Material of Crank shaft Steel Identification Mark on Do. 629 Material of Thrust shaft Steel Identification Mark on Do. 629 Material of Tunnel shafts Steel Identification Marks on Do. 629 Material of Screw shafts Steel Identification Marks on Do. 629 Material of Steam Pipes Copper Test pressure 465A

Is an installation fitted for burning oil fuel? Yes 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? Yes

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

General Remarks (State quality of workmanship, opinions as to class, &c.) Workmanship Good.

The Machinery and Boilers of this Steamer have been constructed under special survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the ratification F.D. and + L.M.C. 1-22 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

F.L.M.C. - 1.22. F.D. C.L.

MACHINERY CERT. WRITTEN 9.2.22 (dated 1.2.22)

Signature and date 2/2/22

The amount of Entry Fee ... £ 4 : 0 : When applied for, Special ... £ 39 : 11 : 26/1/22 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 7.2.22

Signature James Jones Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 31 JAN 1922

Assigned + L.M.C. 1.22. F.D.



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GREENOOK

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.