

# REPORT ON MACHINERY.

No. 41843

Received at London Office

Date of writing Report 31-3-22 When handed in at Local Office 31-3-22 Port of Glasgow  
 Date, First Survey 27.5.1921 Last Survey 17.3.1922  
 (Number of Visits 23)  
 Survey held at Coatbridge  
 on the Machinery for S.S. "RIVER ELY"  
 Built at Montrose By whom built London & Montrose SS 92. When built  
 Engines made at Coatbridge By whom made Wm Beardmore & Co. Ltd. No. 581. when made 1922.  
 Boilers made at Greenock By whom made Messrs Kincaid & Co. No. 119. when made  
 Registered Horse Power Owners Llanelynn Investment & Co. Ltd. Port belonging to Cardiff  
 Nom. Horse Power as per Section 28 114 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

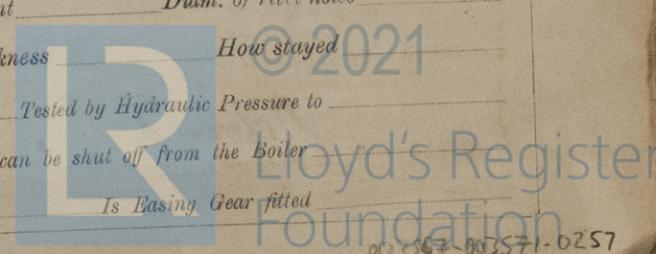
**ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 14 1/2" 24" 14 1/2" Length of Stroke 27 Revs. per minute Dia. of Screw shaft as per rule 8.0" Material of screw shaft M.S.  
 as fitted 8 7/8"  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight  
 in the propeller boss 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 Yes If two  
 liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 3'-1"  
 Dia. of Tunnel shaft as per rule 7.3" Dia. of Crank shaft journals as per rule 4.66" Dia. of Crank pin 1 3/4" Size of Crank webs 15x4 1/2" Dia. of thrust shaft under  
 as fitted hone collars 1 3/4" Dia. of screw 10-6" Pitch of Screw 11-3" No. of Blades 4 State whether moveable No Total surface 39 sq ft  
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes  
 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 2102 sq ft Is Forced Draft fitted No. and Description of Boilers  
 Working Pressure 180 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 rivets Working pressure of shell by rules Size of manhole in shell  
 plate Working pressure of shell by rules Material Outside diameter  
 Size of compensating ring No. and Description of Furnaces in each boiler No. of strengthening rings  
 Length of plain part top Thickness of plates crown Description of longitudinal joint bottom 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 End plates in steam space:  
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays  
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom  
 Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules  
 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 girder 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  
 Tested by Hydraulic Pressure to

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

6/4/22



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

For WILLIAM BEARDMORE & CO., LIMITED.

Manufacturer. R. Sneddon.

Dates of Survey while building: During progress of work in shops -- 1921 May 27 Jun 7 10 29 Jul 12 Aug 9 12 25 Sep 6 Oct 7 12 18 28 Nov 4 11 15 28 30 Dec 8 21 (1921)
During erection on board vessel --- Jan 19 Feb 15 Mar 17
Total No. of visits 23.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 15-11-21 Slides 28-11-21 Covers 15-11-21 Pistons 15-11-21 Rods 15-11-21
Connecting rods 28-11-21 Crank shaft 11-11-21 Thrust shaft 8-12-21 Tunnel shafts ✓ Screw shaft 8-12-21 Propeller 8-12-21
Stern tube 8-12-21 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 M.S. Identification Mark on Do. 8943 No. 11-11-21
Material of Tunnel shafts ✓ Identification Marks on Do. 11-11-21
Material of Thrust shaft M.S. Identification Mark on Do. 8943 No.
Material of Screw shafts M.S. Identification Marks on Do. 8-12-21
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. The Engines have been built under Special Survey in accordance with the Rules of the Society. The materials & workmanship are good. The Engines have been dispatched to Dundee to be fitted on board the vessel.

This engine has now been satisfactorily fitted on board. For full particulars, please see bounder Report No 8369, sent herewith.

John Mackenzie

Glasgow

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 ... £ 3 : 0 : ✓
Special ... £ 11 : 8 : ✓ 4/4/22
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 4/4/22
When received, 10th May 1922
PAID PER SECRETARY'S LTR 10th May 1922

John Barr, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 4 APR 1922 FRI. 26 MAY. 1922

Assigned Defered.

