

# REPORT ON MACHINERY.

No. 8369.

Received at London Office

Date of writing Report

When handed in at Local Office

Port of DUNDEE

No. in Survey held at Montrose  
Reg. Book.

Date, First Survey 21/12/1921 Last Survey May 14/1922

(Number of Vlots 14)

Gross 811

on the S.S. "RIVER ELY"

Net 404

Master                      Built at Montrose By whom built Louden & Montrose S.S. Co. Ltd. When built 1922

Engines made at Coatbridge By whom made Wm. Beardmore & Co. Ltd. when made 1922

Boilers made at Glenoch By whom made J.H. Kincaid & Co. Ltd. when made                     

Registered Horse Power                      Owners Demellon Harrold & 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" 40" Length of Stroke 27 Revs. per minute 125 Dia. of Screw shaft                      Material of screw shafts                     

Is the screw shaft fitted with a continuous liner the whole length of the stern tube                      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 3 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                      Length of stern bush                     

Dia. of Tunnel shaft                      Dia. of Crank shaft journals                      Dia. of Crank pin                      Size of Crank webs                      Dia. of thrust shaft under

collars                      Dia. of screw                      Pitch of Screw                      No. of Blades                      State whether moveable                      Total surface                     

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

No. of Bilge pumps                      Diameter of ditto                      Stroke                      Can one be overhauled while the other is at work                     

No. of Donkey Engines 3 Sizes of Pumps Ballast 7x8x8 GENERAL 6x4x6 FEED 3x1x4 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 @ 2 1/4" 2 @ 2 1/4" In Holds, &c. 2 @ 2" F.A.T. 1 @ 3" A.P.T. 1 @ 3"

No. of Bilge Injections one size 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/4"

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                     

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 Above

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 Forward bilge pipes How are they protected Strong wood casings

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

Dates of examination of completion of fitting of Sea Connections 14.1.22 of Stern Tube 14.1.22 Screw shaft and Propeller 14.1.22

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door                      worked from                     

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

Total Heating Surface of Boilers 2102 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 Single ended

Working Pressure 180 lb sq in Tested by hydraulic pressure to                      Date of test                      No. of Certificate                     

Can each boiler be worked separately                      Area of fire grate in each boiler 59 sq ft No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 5.9 sq in Pressure to which they are adjusted 180 lb sq in Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 4'-0" 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                      Diameter at smallest part                      Area supported by each stay                      Working pressure by rules                      End plates in steam spaces

Material                      Thickness                      Pitch of stays                      How are stays secured                      Working pressure by rules                      Material of stays

Diameter 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 girder at centre                      Length as per rule                      Distance apart                      Number and pitch of stays in each                     

Working pressure by rules                      Superheater or Steam chest; how connected to boiler                      Can the superheater be shut off and the boiler worked

separately                      Diameter                      Length                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet

holes                      Pitch of rivets                      Working pressure of shell by rules                      Diameter of flue                      Material of flue plates                      Thickness

If stiffened with rings                      Distance between rings                      Working pressure by rules                      End plates: Thickness                      How stayed

Working pressure of end plates                      Area of safety valves to superheater                      Are they fitted with easing gear                     

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied: - *Two top end bolts + nuts. Two bottom end bolts + nuts. 2 main bearing bolts + nuts. Set of coupling bolts + nuts. Spare valves for air circulating, feed & bilge pumps. 6 Condenser tubes. 3 Boiler tubes. 1 Safety valve for 6 cylinders cover studs + nuts. 6 Junk ring bolts + nuts. main + donkey check valves. Assorted bolts + nuts + iron of various sizes.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops - *1921* / *DEC. 21. 28.* / *JAN. 12. 14. 25.* / *MAR. 23. 24. 28. 30.* / *APR. 4. 5. 12. 19. 26.* / *MAY 2. 14.*  
Total No. of visits *14.*

Is the approved plan of main boiler forwarded herewith? *No*

Dates of Examination of principal parts - Cylinders *4.4.22* Slides *23.3.22* Covers *26.4.22* Pistons *26.4.22* Rods *26.4.22*  
Connecting rods *26.4.22* Crank shaft *26.4.22* Thrust shaft *26.4.22* Tunnel shafts *26.4.22* Screw shaft *26.4.22* Propeller *26.4.22*  
Stern tube *26.4.22* Steam pipes tested *4.4.22* Engine and boiler seatings *23.3.22* Engines holding down bolts *26.4.22*  
Completion of pumping arrangements *26.4.22* Boilers fixed *30.3.22* Engines tried under steam *26.4.22*  
Main boiler safety valves adjusted *5.4.22* Thickness of adjusting washers *P 7/16" S 1/2"*  
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.  
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.  
Material of Steam Pipes *S.D. Copper, 3 1/2 Bore x 7 W.S.* Test pressure *360 lbs per sq"*  
Is an installation fitted for burning oil fuel *No* 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? *Yes* If so, state name of vessel *"MARION MERRETT" Ham. Rpt 8279*

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

*The machinery of this vessel has been satisfactorily fitted on board under special survey; examined under full working conditions & found in good order. It is eligible in my opinion to have record of F.L.M.C. 5-22.*

For details, please see the following reports:-

*Glasgow No 41843 - main engines  
Greenock No 17943 - main boiler  
Glasgow No 40765 - donkey*

It is submitted that this vessel is eligible for THE RECORD. *F.L.M.C. - 5-22. C.L.*

The amount of Entry Fee ... £ : : When applied for. *18.5.1922*  
*1/5 of Special* ... £ *5.14* ✓  
*+ fitting on board*  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ *4.0* ✓

*Shut & Mackie*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI. 26 MAY. 1922*  
Assigned *+ L.M.C. 5-22*  
*C.L.*

