

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
Reg. Book.

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

(Number of Visits 14)

Gross 811

Net 404

on the S.S. "RIVER ELY"

Master Built at Montrose By whom built London & Montrose S.B. & Co. When built 1922

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

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

Registered Horse Power Owners Glenelg & Montrose S.B. & Co. 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 as per rule as fitted 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 843 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 as per rule as fitted Dia. of Crank shaft journals as fitted 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" In Holds, &c. 2 @ 2" F.P.T. 1 @ 3" A.P.T. 1 @ 3"

No. of Bilge Injections One sizes 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 1/2" 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. and Description of Boilers 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 rivets 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 top Thickness of plates crown Description of longitudinal joint 14943 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 space

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

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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. Condenser tubes. 3 Boiler tubes. 1 Safety valve. 6 cylinder cover studs & nuts. 6 pump ring bolts & nuts. main & donkey check valves. Assorted bolts & nuts & wire of various sizes.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops - -
During erection on board vessel - - -
Total No. of visits

DEC. 21. 28. 1921 JAN. 12. 14. 25. MAR. 23. 24. 28. 30. APR. 4. 5. 12. 19. 26. MAY 2. 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 4.4.22

Engine and boiler seatings 23.3.22

Engines holding down bolts 30.3.22

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 Wt.

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.

Yes

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 "MARION MERRETT" Gen. 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.

1/5 of Special

£

:

18.5.1922

Donkey Boiler Fee

£

:

When received.

Travelling Expenses (if any)

£

:

19.5.1922

Committee's Minute

FRI. 26 MAY. 1922

Assigned

+ L.M.C. 5-22

C.L.

MACHINERY DEPT.
WRITTEN

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Foundation