

# REPORT ON MACHINERY.

No. 33872.

Received at London Office

Date of writing Report 19 When handed in at Local Office 18. 4. 19 1/4 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 3. 4. 14 Last Survey 16. 4. 1914  
 Reg. Book. 116 In on the J. J. "Saint Quentin" (Number of Visits 38)  
 Master R. Luthelara Built at Port Glasgow By whom built W. Hamilton & Co.  
 Engines made at Glasgow By whom made David Rowan & Co. when made 1914  
 Boilers made at do By whom made do when made 1914  
 Registered Horse Power Owners Rankin Gilmore & Co. Port belonging to Liverpool  
 Nom. Horse Power as per Section 28 458 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 27. 44. 73 Length of Stroke 48 Revs. per minute 72 Dia. of Screw shaft as per rule 1.4. 8.75 Material of screw shaft Iron  
 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5. 0  
 Dia. of Tunnel shaft as per rule 13. 325 Dia. of Crank shaft journals as per rule 13. 9. 9 Dia. of Crank pin 14. 2 Size of Crank webs 9 Dia. of thrust shaft under collars 14. 2 Dia. of screw 18. 0 Pitch of Screw 18. 6 No. of Blades 4 State whether moveable No Total surface 100  
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 4. 2 Stroke 24 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 3 Sizes of Pumps 9 x 12 x 12, 8 x 6 x 6, 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 4 — 3. 2 In Holds, &c. 2 — 3. 2 each hold  
 No. of Bilge Injections 1 sizes 6 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3. 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  
 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. For suction How are they protected Wood covering  
 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 7 of Stern Tube 7 Screw shaft and Propeller 19/2/14, 10/4/14  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top grating

**BOILERS, &c.**—(Letter for record (21)) Manufacturers of Steel William Beardmore & Co. Ld  
 Total Heating Surface of Boilers 7860 Is Forced Draft fitted No No. and Description of Boilers Three Single Ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3/11/13 No. of Certificate 12392  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 60.5 No. and Description of Safety Valves to each boiler Cockburn double Area of each valve 3.9 Pressure to which they are adjusted 185 Are they fitted with easing gear  
 Smallest distance between boilers or uptakes and bunkers or woodwork Abt. 2 ft. Mean dia. of boilers 15. 6 Length 11. 6 Material of shell plates steel  
 Thickness 1. 4 Range of tensile strength 28632 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. R. L. long. seams D. B. S. Diameter of rivet holes in long. seams 1. 7. 6 Pitch of rivets 9 Lap of plates or width of butt straps 19. 2  
 Per centages of strength of longitudinal joint rivets 8. 2. 25 plate 8. 5. 41 Working pressure of shell by rules 180 lbs Size of manhole in shell 16 x 12  
 Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Dighton Material steel Outside diameter 4. 0. 8  
 Length of plain part top Thickness of plates crown 2. 1. 6 Description of longitudinal joint mild No. of strengthening rings  
 Working pressure of furnace by the rules 182 Combustion chamber plates: Material steel Thickness: Sides 2. 1. 32 Back 2. 1. 32 Top 2. 1. 32 Bottom 3. 1. 4  
 Pitch of stays to ditto: Sides 8. 3. 4 x 9. 5. 4 Back 8. 7. 16 x 9. 1. 6 Top 8. 8. 4 x 9. 3. 4 If stays are fitted with nuts or riveted heads mild Working pressure by rules 180  
 Material of stays iron Diameter at smallest part 2. 0. 7 Area supported by each stay 8. 2 Working pressure by rules 192 End plates in steam space: Material steel Thickness 1. 7. 16 Pitch of stays 22 x 23 How are stays secured D. nuts Working pressure by rules 180 Material of stays steel  
 Diameter at smallest part 9. 6. 2 Area supported by each stay 4. 3. 3 Working pressure by rules 190 Material of Front plates at bottom steel  
 Thickness 7. 1. 8 Material of Lower back plate steel Thickness 1. 3. 16 Greatest pitch of stays 13 Working pressure of plate by rules 189  
 Diameter of tubes 3. 1. 4 Pitch of tubes 4. 2. 3 x 4. 3 Material of tube plates steel Thickness: Front 7. 8 Back 1. 3. 16 Mean pitch of stays 11. 8  
 Pitch across wide water spaces 13. 2 Working pressures by rules 180 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8. 3. 4 x 7. 8 x 2 Length as per rule 32. 2 Distance apart 9. 3. 4 Number and pitch of stays in each 3 at 8  
 Working pressure by rules 180 Superheater or Steam chest; how connected to boiler none 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

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. Description *None*

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of Safety

Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment

If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length

Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams

Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Plates

Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of stays to do. Dia. of stays

Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint

Working pressure of furnace by rules Thickness of furnace crown plates Radius of do. Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— Two top end bolts, 2 bottom end bolts, 2 main bearing bolts, set of coupling bolts— all with nuts, assorted bolts, iron etc; also tail shaft, propeller, main crank pin bushes, set air & circulating pump valves, etc.

The foregoing is a correct description,

for *David Rowan & Co* Manufacturers.

Dates of Survey while building

During progress of work in shops	1913. Apr 5 June 2 Aug 15. 23. Sept 11. 23. Oct 1. 8. 17. 22. 28. Nov 2. 6. 12. 14. 24. 28. Dec 8. 10. 15. 29.
During erection on board vessel	1914. Jan 15. 22. 30. Feb 5. 12. 19. 23. Mar 2. 5. 18. 27. Apr 2. 10. 13. 15. 16.
Total No. of visits	38.

Is the approved plan of main boiler forwarded herewith *Yes*  
 " " " donkey " " *None*

Dates of Examination of principal parts—Cylinders 12/11/13 Slides 22/1/14 Covers 22/1/14 Pistons 22/1/14 Rods 3/11/13

Connecting rods 3/11/13 Crank shaft 3/11/13 Thrust shaft 3/11/13 Tunnel shafts 10/12/13 Screw shaft 15/12/13 Propeller 15/12/13

Stern tube 15/12/13 Steam pipes tested 29/12/13 etc Engine and boiler seatings 23/2/14 Engines holding down bolts 2/4/14

Completion of pumping arrangements 10/4/14 Boilers fixed 2/4/14 Engines tried under steam 16-4-14

Main boiler safety valves adjusted 15. 4-14 Thickness of adjusting washers P 11/32 S 11/32 P 3/8 S 3/8 P 11/32 S 11/32

Material of Crank shaft *steel* Identification Mark on Do. *H.G.S.* Material of Thrust shaft *steel* Identification Mark on Do. *H.G.S.*

Material of Tunnel shafts *steel* Identification Marks on Do. *H.G.S.* Material of Screw shafts *Iron* Identification Marks on Do. *H.G.S.*

Material of Steam Pipes *steel* Test pressure 540 lb

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

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

This vessel is in our opinion eligible to have notation *L.M.C. H. 14* (in red) in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4. 14.

*JWD*  
 23/4/14

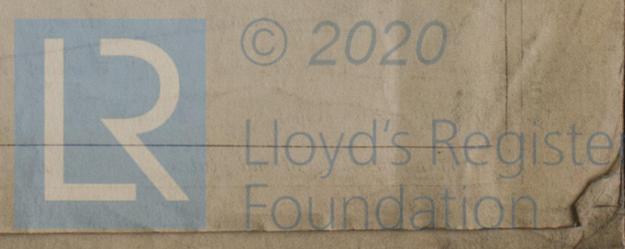
The amount of Entry Fee .. £ 3 : 0 :  
 Special .. £ 42 : 18 :  
 Donkey Boiler Fee .. £ : :  
 Travelling Expenses (if any) £ : :

When applied for, 17-4-14.  
 When received, 21.4.14

*H Gardner-Smith & Co*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW 21 APR. 1914

Assigned + L.M.C. 4. 14.



GLASGOW

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