

REPORT ON MACHINERY.

No. 33801
WED. APR. 1 - 1914

Received at London Office

Date of writing Report 19 When handed in at Local Office 30. 5. 10/14 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 5. 8. 13 Last Survey 24. 5. 1914
 Reg. Book. 26 Sup. on the J. J. "Saint Eibert" (Number of Visits 28. Tons Gross 5596. Net 3555)
 Master W. Barr Built at Port Glasgow By whom built Russell & Co. (K. 661) When built 1914
 Engines made at Glasgow By whom made David Rowan & Co. (K. 608) when made 1914
 Boilers made at do By whom made do (K. 608) when made 1914
 Registered Horse Power Owners Rankin Gilmore & Co. Port belonging to Liverpool
 Nom. Horse Power as per Section 28 557 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 1/2 - 45 - 75 Length of Stroke 51 Revs. per minute 75 Dia. of Screw shaft as per rule 5.345 Material of shaft steel
 as fitted 15.718 screw shaft) 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 — 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 5-3
 Dia. of Tunnel shaft as per rule 13.785 Dia. of Crank shaft journals as per rule 14.474 Dia. of Crank pin 14 3/4 Size of Crank webs 9 1/2 Dia. of thrust shaft under
 collars 15 Dia. of screw 18-6 Pitch of Screw 19-0 No. of Blades 4 State whether moveable No Total surface 116 3/4
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 27 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 8 x 8, 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 at 3 1/2 In Holds, &c. 2 - 3 1/2 each hold
 No. of Bilge Injections 1 sizes 7 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 —
 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 Ford Suctions How are they protected Ward 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 of Stern Tube of Screw shaft and Propeller Screw Rpt
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top grating.

BOILERS, &c.—(Letter for record (2)) Manufacturers of Steel Stewart, Lloyds Ltd + William Beardmore & Co Ltd
 Total Heating Surface of Boilers 8214 Is Forced Draft fitted Yes No. and Description of Boilers Three Single Ended
 Working Pressure 140 lb Tested by hydraulic pressure to 360 lb Date of test 10/12/13 No. of Certificate 12452
 Can each boiler be worked separately Yes Area of fire grate in each boiler 59 No. and Description of Safety Valves to
 each boiler 2 Lockburn Area of each valve 9.6 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork abt 15 Mean dia. of boilers 15-3 Length 12-0 Material of shell plates steel
 Thickness 1 7/32 Range of tensile strength 28 to 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. R. Lap
 long. seams D. B. S. Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8.781 Lap of plates or width of butt straps 18 3/4
 Per centages of strength of longitudinal joint rivets 85.5 Working pressure of shell by rules 180 lb Size of manhole in shell 16 x 12
 plate 85.7 No. and Description of Furnaces in each boiler 3 Dighton Material steel Outside diameter 3-11 3/32
 Length of plain part top Thickness of plates crown 3 1/64 Description of longitudinal joint weld No. of strengthening rings
 bottom Thickness of plates bottom 3 1/64 Working pressure of furnace by the rules 180 Combustion chamber plates: Material steel Thickness: Sides 1 1/16 Back 2 1/32 Top 1 1/16 Bottom 1 1/16
 Pitch of stays to ditto: Sides 8 3/4 x 10 Back 10 2/8 x 7 7/8 Top 8 3/4 x 10 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184
 Material of stays Iron Diameter at smallest part 2.07 Area supported by each stay 86 Working pressure by rules 180 End plates in steam space:
 Material steel Thickness 1 9/32 Pitch of stays 20 7/16 How are stays secured D. nuts Working pressure by rules 180 Material of stays steel
 Diameter at smallest part 7.06 Area supported by each stay 400 Working pressure by rules 183 Material of Front plates at bottom steel
 Thickness 2 9/32 Material of Lower back plate steel Thickness 2 5/32 Greatest pitch of stays 13 Working pressure of plate by rules 183
 Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates steel Thickness: Front 2 9/32 Back 2 3/32 Mean pitch of stays 10 5/32
 Pitch across wide water spaces 13 1/4 Working pressures by rules 180 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 9 1/4 x 1 x 2 Length as per rule 36.576 Distance apart 10 Number and pitch of stays in each 3 at 8 3/4
 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

W664-0039



Multitubular

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. 1 Description Return Tube Cylindrical See Rpt. 5a.
 Made at Glasgow By whom made David Rowan & Co. When made 1914 Where fixed Twin decks.
 Working pressure 100 Tested by hydraulic pressure to 200 lb Date of test 10/12/13 No. of Certificate 2436 Fire grate area 35.5 Description of Safety Valves Cocks No. of Safety Valves 2 Area of each 5.9 Pressure to which they are adjusted 105 lb Date of adjustment 18/3/14
 If fitted with casing gear Yes If steam from main boilers can enter the donkey boiler See Dia. of donkey boiler 12'-0" Length 10'-0"
 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, feed & bilge pump valves, assorted iron, bolts, etc. Also propeller shaft, propeller, pair bottom end bushes, eccentric strap etc.

The foregoing is a correct description,
 for David Rowan & Co. Manufacturer.

Dates of Survey while building
 During progress of work in shops --- 1913 Aug 5. Sept 11. 23. Oct 8. 17. 28. Nov 3. 12. 14. 19. 24. 28. Dec. 2. 8. 10. 15. 29.
 During erection on board vessel --- 1914 Jan 15. 22. 30. Feb 5. 13. 24. Mar 2. 9. 11. 18. 24
 Total No. of visits 28.

Is the approved plan of main boiler forwarded herewith Yes ✓
 " " " donkey " " " Yes ✓

Dates of Examination of principal parts—Cylinders 3/11/13 Slides 15/12/13 Covers 3/11/13 Pistons 15/12/13 Rods 3/11/13
 Connecting rods 3/11/13 Crank shaft 8/12/13 Thrust shaft 5/2/14 Tunnel shafts 15/1/14 Screw shaft 3/11/13 Propeller 15/12/13
 Stern tube 15/12/13 Steam pipes tested 29/12/13 Engine and boiler seatings 2/3/14 Engines holding down bolts 11/3/14
 Completion of pumping arrangements 18/3/14 Boilers fixed 9/3/14 Engines tried under steam 24/3/14
 Main boiler safety valves adjusted 18/3/14 Thickness of adjusting washers P. 13/32, 3/8, C. 15/32, 1/2, S. 12/32, 3/8, D. B. 11/32, 1/2
 Material of Crank shaft Steel Identification Mark on Do. H. G. 5 Material of Thrust shaft Steel Identification Mark on Do. H. G. 5
 Material of Tunnel shafts Steel Identification Marks on Do. H. G. 5 Material of Screw shafts Steel Identification Marks on Do. H. G. 5
 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 —
 * LMC 3, 14 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD, + LMC 3. 14. FD.

JWD
 27/4/14

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

The amount of Entry Fee .. £ 3 : 0 :
 Special £ 47 : 17 :
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 27.3.14.
 When received, 31.3.14.

Committee's Minute GLASGOW 31 MAR. 1914

Assigned + L.M.C 3, 14



© 2021 Lloyd's Register Foundation

ENGINEERS CERTIFICATE WRITTEN

GLASGOW

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