

REPORT ON MACHINERY.

No. 67291
TUE. MAR. 23. 1915

Received at London Office

Date of writing Report 22nd March 1915 When handed in at Local Office 22nd March 1915 Port of NEWCASTLE-ON-TYNE.
 No. in Survey held at South Shields Date, First Survey Aug. 27. 1914 Last Survey Mar 16. 1915
 Reg. Book. 91 on the S. S. Blaydonian (Number of Visits 37) Gross Tons 314
 Master Sin Built at S. Shields By whom built J. P. Remoldson & Sons Ltd When built 1915
 Engines made at S. Shields By whom made J. P. Remoldson & Sons Ltd when made 1915
 Boilers made at Hebburn By whom made Palmer, S. B. & Iron Co. Ltd when made 1915
 Registered Horse Power _____ Owners Blaydon & London S. S. Co. Ltd Port belonging to Newcastle
 Nom. Horse Power as per Section 28 70 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders Two No. of Cranks 2
 Dia. of Cylinders 17" & 36" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft 7.85" Material of Iron
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No 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 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 Yes Length of stern bush 32"
 Dia. of Tunnel shaft as per rule 6.96" Dia. of Crank shaft journals as per rule 7.3" Dia. of Crank pin 7.2" Size of Crank web 13.8" x 7.8" Dia. of thrust shaft under
 collars 7.2" Dia. of screw 8-9" Pitch of Screw 11-0" No. of Blades 4 State whether moveable No Total surface 26.9 sq ft
 No. of Feed pumps One Diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps One Diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines One duplex Sizes of Pumps 6 x 5 1/2 x 6 & 5 x 3 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One (one 2" & one 2 1/4") In Holds, &c. One 2" in fore hold
 No. of Bilge Injections One sizes 2 1/4" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes, 2 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 Yes
 Are all connections with the sea direct on the skin of the ship Yes Are the 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 None How are they protected Yes
 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 23/1, 27/1/15 of Stern Tube 7/1, 11/1, 27/1/15 Screw shaft and Propeller 23/1, 27/1/15
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel See attached report on boiler.
 Total Heating Surface of Boilers 1296 sq ft Is Forced Draft fitted No No. and Description of Boilers One, Single Ended
 Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs Date of test 7/1/15 No. of Certificate 8748
 Can each boiler be worked separately Yes Area of fire grate in each boiler 43.8 sq ft No. and Description of Safety Valves to
 each boiler One, direct spring Area of each valve 7.07 sq in Pressure to which they are adjusted 135 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 14" 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 _____ 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 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 _____

W414-0222

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

Two top & two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts and nuts, one set of feed & one set of bilge pump valves & seats, assorted bolts & nuts & a few bars of iron.

The foregoing is a correct description,

J. P. RENNOLDSON & SONS LTD.

J. P. Rennoldson

DIRECTOR.

Manufacturer.

Dates of Survey while building: During progress of work in shops - Aug 27, Sep 4, 10, 30, Oct 24, 14, 16, 22, 27, Nov 20, Dec 8, 18, 24, Jan 7, 11, 14. During erection on board vessel - 20, 23, 25, 27, 28, Feb 1, 2, 11, 16, 18, 19, 22, 26, Mar 2, 4, 8, 9, 10, 11, 16. Total No. of visits 37+

Is the approved plan of main boiler forwarded herewith? Yes

Dates of Examination of principal parts: Cylinder 27/5, 4/9, 8/10. Slides 2/10, 26/11/15. Covers 2/10, 27/10. Pistons 4/10, 26/11/15. Rods 14/10, 26/11/15. Connecting rods 4/10, 26/11/15. Crank shaft 10/9, 30/10. Thrust shaft 25/1, 2/3/15. Tunnel shafts None. Screw shaft 4/9, 8/12/14. Propeller 7/1/15.

Stern tube 4/3/14, 11/4/15. Steam pipes tested 8/3/15. Engine and boiler seatings 11/2/15. Engines holding down bolts 1/12, 22/2/15.

Completion of pumping arrangements 11/3/15. Boilers fixed 26/2/15. Engines tried under steam 11/3/15.

Main boiler safety valves adjusted 11/3/15. Thickness of adjusting washers 3/8" & 3/8".

Material of Crank shafts Steel. Identification Mark on Do 9/1/15 6M. Material of Thrust shaft 9/1/15 6M. Identification Mark on Do 9/1/15 6M.

Material of Tunnel shafts None. Identification Marks on Do. ✓. Material of Screw shafts 9/1/15 6M. Identification Marks on Do. do.

Material of Steam Pipes Copper. Test pressure 260 lb per sq. in.

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? No. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under special survey, the materials & workmanship are of good quality, it has been securely fitted on board & satisfactorily tested under full steam.

In my opinion the machinery of this vessel is now eligible for record L M C 3.15 (mch) in the register book.

Boiler plan, report on boiler, mirrors & forging reports now forwarded.

It is submitted that this vessel is eligible for THE RECORD + L M C 3.15.

The amount of Entry Fee ... £ 1 : 0 : 0. Special ... £ 10 : 10 : 0. Donkey Boiler Fee ... £ . Travelling Expenses (if any) £ .

When applied for,

MAR 22 1915

When received,

29 MAR 1915

George Murdoch
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI MAR 26 1915

Assigned + L M C 3.15



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