

Rpt. 4.

REPORT ON MACHINERY.

No. 15375

Received at London Office

SAT 16 JUN. 1917

Date of writing Report 11th June 1917 When handed in at Local Office 14/6/17 Port of West Hartlepool
 No. in Survey held at West Hartlepool Date, First Survey 17th Oct/16 Last Survey 19th June 1917
 Reg. Book. on the steel screw steamer "MAINDY COURT" (Number of Vents 79) Gross 3792
 Tons 1435 Net

Master J. Annally Built at Sunderland By whom built J. Priestman & Co. Ltd. When built 1917
 Engines made at Hartlepool By whom made Richardsons, Westgarth & Co. Ltd. when made 1917
 Boilers made at Hartlepool By whom made Richardsons, Westgarth & Co. Ltd. when made 1917
 Registered Horse Power 351 Owners Maindy Shipping Co. Ltd. Port belonging to Cardiff
 Nom. Horse Power as per Section 28 351 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion (Horizontal) Cylinder No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 25-41-67 Length of Stroke 45 Revs. per minute 65 Dia. of Screw shaft as per rule 13.85 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 no Length of stern bush 4-8 1/2
 Dia. of Tunnel shaft as per rule 12.41 Dia. of Crank shaft journals as per rule 13.03 Dia. of Crank pin 13 1/2 Size of Crank webs 8x19 3/4 Dia. of thrust shaft under collars 14 1/2 Dia. of screw 16-9 Pitch of Screw 16-6 No. of Blades four State whether moveable no Total surface 90 sq ft
 No. of Feed pumps two Diameter of ditto 3 Stroke 2 1/2 Can one be overhauled while the other is at work yes Two independent pumps
 No. of Bilge pumps two Diameter of ditto 3 3/4 Stroke 2 1/2 Can one be overhauled while the other is at work yes
 No. of Donkey Engines three Sizes of Pumps General Service 7x7 1/2 hp No. and size of Suctions connected to both Bilge and Donkey pumps 11x10 inch 1/2 hp
 In Engine Room three 3 1/2 dia In Holds, &c. no on each Hold 3 1/2 dia, turned with one 3 1/2

No. of Bilge Injections six sizes 5 1/2 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 no
 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 none How are they protected no
 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 3-5-17 of Stern Tube 15/5/17 Screw shaft and Propeller 15/5/17
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel J. Opencer & Sons Ltd. & Leeds Forge Co. Ltd.
 Total Heating Surface of Boilers 5440 sq ft Is Forced Draft fitted no No. and Description of Boilers 3 single ended, cyl. Multitubular
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 8/3/17 No. of Certificate 3453
 Can each boiler be worked separately yes Area of fire grate in each boiler 46.9 sq ft No. and Description of Safety Valves to each boiler no direct spring Area of each valve 5.94 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 30 Mean dia. of boilers 14-3 Length 10-6 Material of shell plates steel
 Thickness 1 5/8 Range of tensile strength 28 1/2 to 32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Lap DR.
 long. seams DR. TR Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 1 1/2
 Per centages of strength of longitudinal joint 86.4% Working pressure of shell by rules 185 lb Size of manhole in shell 12x16 1/2
 Size of compensating ring 7 3/4 x 1 1/2 No. and Description of Furnaces in each boiler three Suspension Material steel Outside diameter 43 3/4
 Length of plain part top 9 1/2 bottom 7 1/2 Thickness of plates crown 9 1/2 bottom 7 1/2 Description of longitudinal joint Weld No. of strengthening rings —
 Working pressure of furnaces by the rules 201 1/2 lb Combustion chamber plates: Material steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 13/16
 Pitch of stays to ditto: Sides 7x8 1/4 Back 7x8 3/8 Top 7 1/2 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183.6 lb
 Material of stays steel Diameter at smallest part 1 1/4 Area supported by each stay 8 3/8 x 7 Working pressure by rules 202 1/2 lb End plates in steam space: Material steel Thickness 1 1/2 x 1 3/4 Pitch of stays F. 16 1/2 x 19 1/2 B. 16 x 18 1/2 How are stays secured by nuts Working pressure by rules 182 1/2 lb Material of stays steel
 Diameter at smallest part 6 1/4 Area supported by each stay 16 x 20 Working pressure by rules 198 1/2 lb Material of Front plates at bottom steel
 Thickness 13/16 Material of Lower back plate steel Thickness 13/16 Greatest pitch of stays 13 x 8 3/8 Working pressure of plate by rules 190 lb
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays 13 1/2 x 8 3/8
 Pitch across wide water spaces 14 1/4 Working pressures by rules 212 lb Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7 x 13 1/4 Length as per rule 24 1/2 Distance apart 8 Number and pitch of stays in each no 7 1/2
 Working pressure by rules 182 1/2 lb 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?

No

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:— Two each Top End, Bottom End & Main Bearing Bolts & Nuts, one set of connecting Bolts, one set of feed & one set of side valves, one set of check valves. Two safety valve springs. Propeller & Shaft & assorted Bolts nuts pins & brass.

The foregoing is a correct description.

FOR RICHARDSON, WESTGARTH & CO. LIMITED

J. L. Stanley

Manufacturers

Dates of Survey while building { During progress of work in shops 1916 Oct 17 18 Nov 6 7 13 14 23 Dec 4 6 8 11 19 22 27 28 1917 Jan 4 5 9 11 15 18 22 23 25 26 27 29 30 31
During erection on board vessel Feb 2 5 6 12 13 14 15 16 19 20 22 23 26 27 28 March 1 6 8 9 12 13 15 19 26 27 Apr 4 10 11 20 21 23 25 May 10 14
Total No. of visits 15 17 21 23 24 31 June 1 6 7 9 (73+6) Is the approved plan of main boiler forwarded herewith 7/24 ✓

at Sld. Apr. 5 May 3 June 29 Jul 3 6 12

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 12/11 & 13/11 Slides 12/11 & 13/11 Covers 10/11 Pistons 11/11 & 13/11 Rods 12/11 & 13/11
Connecting rods 22/11 & 23/11 Crank shaft 22/11 & 23/11 Thrust shaft 22/11 & 23/11 Tunnel shafts 18/11 & 19/11 Screw shaft 23/11 & 24/11 Propeller 22/11 & 23/11
Stern tube 23/11 Steam pipes tested 24/11 & 1/12 Engine and boiler seatings 15/11 Engines holding down bolts 21/11
Completion of pumping arrangements 6/11 Boilers fired 17/11 Engines tried under steam 6/11
Main boiler safety valves adjusted 6/11 Thickness of adjusting washers 13/11 15/11 16/11 17/11 18/11 19/11 20/11 21/11 22/11 23/11 24/11 25/11 26/11 27/11 28/11 29/11 30/11 31/11
Material of Crank shaft steel Identification Mark on Do 5889 Material of Thrust shaft steel Identification Mark on Do 5889
Material of Tunnel shafts iron Identification Marks on Do 5889 Material of Screw shafts iron Identification Marks on Do 5889
Material of Steam Pipes Lapwelded iron ✓ Test pressure 540 lb

Is an installation fitted for burning oil fuel

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

Exhaust	Feed Water
791	801
50 lb	50 lb
27/2/17	21/4/17

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

Inspection Body tested 50 lb. Ends 400 lb. Feed Water Body tested 50 lb. Ends 400 lb.

The Engines & Boilers of this Vessel have been built under Special Survey the Material & Workmanship sound & good. The Boilers & Steam pipes have been tested by Hydraulic pressure in accordance with the Rules. The Machinery worked well at the manning & the safety valves have been adjusted under steam to their working pressure. Rendering this Vessel Eligible in our opinion to have the Notation of *LMC Sp in the Register Book when the Survey is completed as under

To complete Survey. The Main feed pumps to work. Emergency gear to fit to safety valves and the Tunnel to be made watertight. Surveyors Advised 9/6/17. Sld. Also the steering engine gear & Electric Light to complete work.

Sunderland. Feed pumps tried, safety valve casing gear fitted tunnel made watertight steering engine and electric light fitted. a gimmed branch piece fitted to the main check valve of the centre boiler and another fitted to the donkey check valve of the port boiler. 3 lapwelded iron main steam lines tested to 540 lb and refitted in vessel as recommended above and in RML letters dated 9/20-6-17

The amount of Entry Fee ... £ 3 : 0 : When applied for.

Special ... £ 34 : 11 : 15/6/17

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : 20/7/17

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

Committee's Minute

Assigned

TUE 17 JUL 1917

+ LMC 7/17

MACHINERY CERTIFICATE
WRITTEN.



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Foundation