

REPORT ON MACHINERY.

No. 68725

Received at London Office

WED. 10 MAY. 1916

Date of writing Report 2nd May 1916 When handed in to Local Office 2nd May 1916 Port of South ShieldsNo. in Survey held at South Shields Date, First Survey 21st April 1915 Last Survey 2nd May 1916Reg. Book. 67 on the S.S. Polly Bridge

(Number of Vessels)

Gross 403Net 150 163Master S. Shields Built at S. Shields By whom built P. Remoldson & Son Ltd When built 1916Engines made at S. Shields By whom made P. Remoldson & Son Ltd when made 1916Boilers made at Stockton By whom made Riley Bros Ltd when made 1916Registered Horse Power 50.74 Owners H. Latham & Son Ltd Port belonging to HullNom. Horse Power as per Section 28 50.74 Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted ☒ENGINES, &c.—Description of Engine Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2No. of Cylinders 17 & 36 Length of Stroke 24 Revs. per minute 108 Dia. of Screw shaft 7 1/2 Material of screw shaft IronIs 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 tightthe 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ☒ If twoliners are fitted, is the shaft lapped or protected between the liners ☒ Length of stern bush 30Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin 7 1/2 Size of Crank web 13 1/8 x 4 7/8 Dia. of thrust shaft undercollars 7 1/2 Dia. of screw 8-9 Pitch of Screw 11-0 No. of Blades 4 State whether moveable ☒ Total surface 26.9 sq ftNo. of Feed pumps 2 Diameter of ditto 2 1/4 Stroke 12 Can one be overhauled while the other is at work yesNo. of Bilge pumps 2 Diameter of ditto 2 1/4 Stroke 12 Can one be overhauled while the other is at work yesNo. of Donkey Engines 2 Sizes of Pumps 5 1/2 x 4 1/2 & 5 1/2 x 3 1/2 No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room One 2 1/4" and one 2" diam In Holds, &c. Four 2" diamNo. of Bilge Injections 1 sizes 2 1/4 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes, 2 1/2Are 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 BothAre 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 aboveAre 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 yesWhat pipes are carried through the bunkers None How are they protected ☒Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 11/3/16 of Stern Tube 12/1/16 of Screw shaft and Propeller 10/4/16Is the Screw Shaft Tunnel watertight ☒ Is it fitted with a watertight door ☒ worked from ☒OILERS, &c.—(Letter for record S) Manufacturers of Steel Spencer & Sons LtdTotal Heating Surface of Boilers 1400 sq ft Forced Draft fitted ☒ No. and Description of Boilers One Single EndedWorking Pressure 130 lb per sq in Tested by hydraulic pressure to 260 lb Date of test 23/12/15 No. of Certificate 5596Can each boiler be worked separately ☒ Area of fire grate in each boiler 45 sq ft No. and Description of Safety Valves toeach boiler one direct spring Area of each valve 7.07 sq in Pressure to which they are adjusted 135 lb per sq in Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 14-0 Mean dia. of boilers 12-9 Length 10-3 Material of shell plates SteelSee attached report on boiler. Thickness See attached Range of tensile strength See attached Are the shell plates welded or flanged ☒ Descrip. of riveting: cir. seams ☒long. seams See attached Diameter of rivet holes in long. seams See attached Pitch of rivets See attached Lap of plates or width of butt straps See attachedPer centages of strength of longitudinal joint See attached Working pressure of shell by rules See attached Size of manhole in shell See attachedSize of compensating ring See attached No. and Description of Furnaces in each boiler See attached Material See attached Outside diameter See attachedLength of plain part See attached Thickness of plates See attached Description of longitudinal joint See attached No. of strengthening rings See attachedWorking pressure of furnace by the rules See attached Combustion chamber plates: Material See attached Thickness: Sides See attached Back See attached Top See attached Bottom See attachedPitch of stays to ditto: Sides See attached Back See attached Top See attached If stays are fitted with nuts or riveted heads See attached Working pressure by rules See attachedMaterial of stays See attached Diameter at smallest part See attached Area supported by each stay See attached Working pressure by rules See attached End plates in steam space See attachedMaterial See attached Thickness See attached Pitch of stays See attached How are stays secured See attached Working pressure by rules See attached Material of stays See attachedDiameter at smallest part See attached Area supported by each stay See attached Working pressure by rules See attached Material of Front plates at bottom See attachedThickness See attached Material of Lower back plate See attached Thickness See attached Greatest pitch of stays See attached Working pressure of plate by rules See attachedDiameter of tubes See attached Pitch of tubes See attached Material of tube plates See attached Thickness: Front See attached Back See attached Mean pitch of stays See attachedPitch across wide water spaces See attached Working pressures by rules See attached Girders to Chamber tops: Material See attached Depth andthickness of girder at centre See attached Length as per rule See attached Distance apart See attached Number and pitch of stays in each See attachedWorking pressure by rules See attached Superheater or Steam chest; how connected to boiler See attached Can the superheater be shut off, and the boiler workedseparately See attached Diameter See attached Length See attached Thickness of shell plates See attached Material See attached Description of longitudinal joint See attached Diam. of rivetholes See attached Pitch of rivets See attached Working pressure of shell by rules See attached Diameter of flue See attached Material of flue plates See attached Thickness See attachedIf stiffened with rings See attached Distance between rings See attached Working pressure by rules See attached End plates: Thickness See attached How stayed See attachedWorking pressure of end plates See attached Area of safety valves to superheater See attached Are they fitted with easing gear See attached

W1641-0117

Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED? *No*

U.S. 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 & nuts, one set of feed & bilge pump valves, a few bars of iron and assorted bolts & nuts.

The foregoing is a correct description,

L. P. RENNOLDSON & SONS LTD.

L. P. Rennoldson

DIRECTOR

Manufacturer.

Dates of Survey while building

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

1915
Apr 21 27 29 May 10 Jun 2 24 Jul 6 20 28 Aug 6 10 27 30 Sep 8 9 21 24 29 Oct 13 14 18 27 Nov 4 10 15 29 Dec 2 9 15 21 31 1916 Jan 11 18 26 Feb 17 22 Mar 1

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts - *6/7, 20/7, 11/8*
Cylinders *27/8, 9/9/15* Slides *30/8, 13/10/15* Covers *31/8 & 9/9/15* "donkey" *30/8, 13/10* Pistons *27/10/15* Rods *6/7, 20/7, 13/10/15*
Connecting rods *27/10/15* Crank shaft *27/9/15* Thrust shaft *27/9/15* Tunnel shafts *None* Screw shaft *15/12/15* Propeller *27/10/15*
Stern tube *17/2/16* Steam pipes tested *6/4/16* Engine and boiler seatings *1/3/16* Engines holding down bolts *27/3, 31/3*
Completion of pumping arrangements *27/4/16* Boilers fixed *29/3, 31/3/16* Engines tried under steam *27/4/16*
Main boiler safety valves adjusted *27/4/16* Thickness of adjusting washers *7/32 + 11/32*
Material of Crank shaft *Steel* Identification Mark on Do. *GAH* Material of Thrust shaft *Iron* Identification Mark on Do. *16/12*
Material of Tunnel shafts *None* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *10/4/16*
Material of Steam Pipes *Copper* Test pressure *260 lbs 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 material and workmanship are of good quality, it has been securely fitted on board and satisfactorily tried under full steam pressure.*

In my opinion the machinery of this vessel is now eligible for record of L.M.C. 5-16 in the register.

Plan of boiler & mab report No 9174, and two forging reports now attached

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 5-16.

The amount of Entry Fee ... £ *8 : 0*
Special ... £ *3 : 2*
Donkey Boiler Fee ... £ *✓*
Travelling Expenses (if any) ... £ *✓*

When applied for, MAY 9 1916

When received, MAY 9 1916

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

Committee's Minute FRI. 12 MAY 1916

Assigned *+ L.M.C. 5-16*

MACHINERY CERTIFICATE WRITTEN