

# REPORT ON MACHINERY.

No. 11641

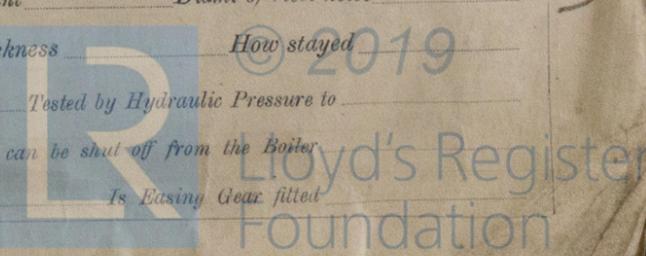
Received at London Office **SAT 4 JUL. 1923**  
 Date of writing Report 19 When handed in at Local Office **12<sup>th</sup> July 1923** Port of **Middlesbrough**  
 No. in Survey held at **Glasgow and Middlesbrough** Date, First Survey **4<sup>th</sup> June** Last Survey **2<sup>nd</sup> July 1923**  
 Reg. Book. on the **Steel Screw Steamer HOOKWOOD. (SS N<sup>o</sup> 51)** (Number of Visits **3**)  
 Master Built at **Haverton Hill** By whom built **Furness S B Co Ltd** Tons } Gross  
 Engines made at **Glasgow** By whom made **Ross & Duncan N<sup>o</sup> 1113** when made **1923** } Net  
 Boilers made at **do** By whom made **do** when made **1923** }  
 Registered Horse Power Owners Port belonging to  
 Nom. Horse Power as per Section 28 **156** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **no**

ENGINES, &c.—Description of Engines **Triple Expansion (See G.L. Rpt N<sup>o</sup> 42795** No. of Cylinders **3** No. of Cranks **3**  
 Dia. of Cylinders **17" - 27 1/2" - 46"** Length of Stroke **33"** Revs. per minute Dia. of Screw shaft **as per rule 9.85" as fitted 10 3/16"** Material of screw shaft **S**  
 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  
 on 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 **40 1/2"**  
 Dia. of Tunnel shaft **as per rule 8.62" as fitted 8 3/4"** Dia. of Crank shaft journals **as per rule 9.05" as fitted 9 1/8"** Dia. of Crank pin **9 1/4"** Size of Crank webs **17 1/8" x 6"** Dia. of thrust shaft under  
 collars **9 1/8"** Dia. of screw **12 - 3"** Pitch of Screw **12 - 6"** No. of Blades **4** State whether moveable **no** Total surface **50 sq ft**  
 No. of Feed pumps **2** Diameter of ditto **2 3/4"** Stroke **16 1/2"** Can one be overhauled while the other is at work **yes**  
 No. of Bilge pumps **2** Diameter of ditto **3"** Stroke **16 1/2"** Can one be overhauled while the other is at work **yes**  
 No. of Donkey Engines **2** Sizes of Pumps **6 x 8 x 8 6 x 4 1/2 x 6 duplex** No. and size of Suctions connected to both Bilge and Donkey pumps  
 in Engine Room **3 @ 2 1/2"** In Holds, &c. **2 @ 3" in forehold, 3 @ 3" in aft hold**  
 Tunnel well one @ 2 1/2"  
 No. of Bilge Injections **1** sizes **4"** Connected to condenser or to circulating pump **yes** 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~~ **mudboxes** in Engine room always accessible **yes** Are the sluices on Engine room bulkheads always accessible **none**  
 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  
 What pipes are carried through the bunkers **Suction to fore hold** How are they protected **Wood ceiling**  
 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**  
 Is the Screw Shaft Tunnel watertight **yes** Is it fitted with a watertight door **yes** worked from **Top platform**

RETAIN

OILERS, &c.—(Letter for record **S**) Manufacturers of Steel **Colvilles**  
 Total Heating Surface of Boilers **2806 sq ft** Is Forced Draft fitted **no** No. and Description of Boilers **Two single ended**  
 Working Pressure **180 lbs** Tested by hydraulic pressure to **320 lbs** Date of test **7-6-23** No. of Certificate **16273-16274**  
 Can each boiler be worked separately **yes** Area of fire grate in each boiler **39.5 sq ft** No. and Description of Safety Valves to  
 each boiler **Two Spring loaded** Area of each valve **4.9 sq ft** Pressure to which they are adjusted **182 lbs** Are they fitted with easing gear **yes**  
 Smallest distance between boilers or uptakes and bunkers or woodwork **1'-6"** Mean dia. of boilers **12'-0"** Length **10'-6"** Material of shell plates **S**  
 Thickness **1"** Range of tensile strength **28-32** Are the shell plates welded or flanged **no** Descrip. of riveting: cir. seams **D.R**  
 long. seams **T.R.D.B.S** Diameter of rivet holes in long. seams **1"** Pitch of rivets **7"** Lap of plates or width of butt straps **14 1/8"**  
 Per centages of strength of longitudinal joint **rivets 86.4 plate 85.7** Working pressure of shell by rules **182** Size of manhole in shell **16" x 12"**  
 Size of compensating ring **30 1/2" x 26 1/2"** No. and Description of Furnaces in each boiler **2 Morrison** Material **S** Outside diameter **3'-7 1/8"**  
 Length of plain part **top bottom** Thickness of plates **9 1/16"** Description of longitudinal joint **weld** No. of strengthening rings **yes**  
 Working pressure of furnace by the rules **189** Combustion chamber plates: Material **S** Thickness: Sides **1 1/16"** Back **5/8"** Top **1 1/16"** Bottom **1 1/16"**  
 Pitch of stays to ditto: Sides **9 1/2" x 9"** Back **8 1/2" x 8 1/2"** Top **9 1/2" x 9"** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **187**  
 Material of stays **S** Area at smallest part **2.07 sq ft** Area supported by each stay **85.5 sq ft** Working pressure by rules **195** End plates in steam space:  
 Material **S** Thickness **1"** Pitch of stays **16" x 17"** How are stays secured **D.N.L.W** Working pressure by rules **197** Material of stays **S**  
 Area at smallest part **4.57 sq ft** Area supported by each stay **272 sq ft** Working pressure by rules **182** Material of Front plates at bottom **S**  
 Thickness **7/8"** Material of Lower back plate **S** Thickness **27/32"** Greatest pitch of stays **14" x 8 1/2"** Working pressure of plate by rules **216**  
 Diameter of tubes **3 1/4"** Pitch of tubes **4 1/2" x 4 1/2"** Material of tube plates **S** Thickness: Front **7/8"** Back **3/4"** Mean pitch of stays **10"**  
 Pitch across wide water spaces **14"** Working pressures by rules **183** Girders to Chamber tops: Material **S** Depth and  
 thickness of girder at centre **7" x 1 3/4"** Length as per rule **30 5/8"** Distance apart **9"** Number and pitch of stays in each **2 - 9 1/2"**  
 Working pressure by rules **214** Steam dome: description of joint to shell % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed  
 SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W415-0088



IS A DONKEY BOILER FITTED? No ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two each of Top and bottom end connecting rod bolts and nuts, two Main bearing bolts and nuts, one set of coupling bolts and nuts, one set Main and donkey feed check valves, set of Main feed and bridge valves, one safety valve spring, set of spare links for Piston rings, 6 Junk ring bolts, one C & I Propeller, quantities of assorted bolts & nuts and repairing iron, Crank shaft gauge, Propeller gauge, and stoppers & minor gear.

The foregoing is a correct description,

See Glasgow Report No. 42795.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920 Jan 4, 14, Jul 7, Sept 29, Oct 19, Nov 8, 25, 30, Dec 27, 1921 Jan 21, 26, Feb 2, 8, 14, 22, Mar 9, 18, 23, Apr 5, 13, 20, 28, May 18, 18, Aug 11, Sept 13, 23, Nov 10, 21, 1923 Mar 14, 22, 26, Apr 5, 9, 16, 26, 30, May 7, 11, 15, 18, 24, 28, 31, June 5, 7, 12, 13, 19, 20, 22, 27, 28, Jul 3, 4, 6, 9. Total No. of visits 46 + 13 = 59. Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 5-6-23 Slides 5-6-23 Covers 5-6-23 Pistons 18-5-23 Rods 18-5-23 Connecting rods 18-5-23 Crank shaft 7-5-23 Thrust shaft 28-5-23 Tunnel shafts 28-5-23 Screw shaft 5-6-23 Propeller 5-6-23 Stern tube 5-6-23 Steam pipes tested 26/7/8-6-23 Engine and boiler seatings 28-6-23 Engines holding down bolts 3-7-23 Completion of pumping arrangements 3-7-23 Boilers fixed 3-7-23 Engines tried under steam 4-7-23 Completion of fitting sea connections 12-6-23 Stern tube 13-6-23 Screw shaft and propeller 13-6-23 Main boiler safety valves adjusted 4-7-23 Thickness of adjusting washers Port Boiler 1 3/8 SV 1 3/2. St Boiler 1 3/8 SV 1 1/2. Material of Crank shaft S Identification Mark on Do. 1113 JSC Material of Thrust shaft S Identification Mark on Do. 1113 H. Material of Tunnel shafts S Identification Marks on Do. 1113 H & S. Material of Screw shafts S Identification Marks on Do. 1113 J.S. Material of Steam Pipes Solid drawn Copper (4 bore No 79) Test pressure 360 lbs.

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 Yes. If so, state name of vessel S.S. Bishopston (See Gls Rpt 42795)

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery of this vessel which was built under special survey (See Gls Rpt No. 42795) has now been satisfactorily secured on board, in accordance with the rules, the safety valves adjusted, and the Engines, Boilers and auxiliaries examined under steam, and all found satisfactory.

The Machinery is in a good and safe working condition, and renders the vessel eligible in my opinion to have the notation of LMC 7-23 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7. 23. CL.

JWD. 16/7/23

C. E. Wilkes Engineer Surveyor to Lloyd's Register of Shipping.

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

The amount of Entry Fee ... £ : : When applied for, Special ... 5 ... £ 7 : 16 : 13.7. 19 23. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 6. 23.

Committee's Minute Assigned + LMC 7. 23 C.L.

FRI. 14 SEP. 1923

CERTIFICATE WRITTEN.

FRI. JUL 27 1923

FRI. AUG. 31 1923

FRI. 5 OCT. 1923

TUE. AUG. 21 1923

Lloyd's Register Foundation