

REPORT ON MACHINERY.

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Date of writing Report 12-9-17 When handed in at Local Office 12-9-17 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 13 June 16 Last Survey 11-9-1917
 Reg. Book. on the R.F.A. "CELEROL" (Number of Volls 111) Gross 2649 Tons Net 1136
 Master Mills Built at Sunderland By whom built Shaw Bros. Ltd (S/N 410) When built 1917
 Engines made at Sunderland By whom made George Clark Ltd (N° 1053) when made 1917
 Boilers made at Sunderland By whom made George Clark Ltd (N° 1053) when made 1917
 Registered Horse Power _____ Owners Lord Comptrol of Admiralty Port belonging to London
 Nom. Horse Power as per Section 28 543 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 26" 42" 70" Length of Stroke 45 Revs. per minute 100 Dia. of Screw shaft as per rule 14.097 Material of Steel
 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 no If two
 liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 6'-1 1/2"
 Dia. of Tunnel shaft as per rule 13.195 Dia. of Crank shaft journals as per rule 13.83A Dia. of Crank pin 14 3/8" Size of Crank webs 23 1/4 x 9 Dia. of thrust shaft under
 rollers 14 3/8" Dia. of screw 15'-6" Pitch of Screw 16'-3" No. of Blades 4 State whether moveable no Total surface 77 sq ft
 No. of Feed pumps 2 Diameter of ditto 3 1/4" Stroke 26" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 26" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 2 @ 12 & 9 x 12, 1 @ 8 & 8 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 @ 3 1/2" In Holds, &c. Stokehold - 2 @ 3 1/2"

No. of Bilge Injections 2 sizes 10" Connected to condenser, or to circulating pump B.P. 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 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 non discharge below, all this 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 oil pipes only 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 14-3-17 of Stern Tube 14-3-17 Screw shaft and Propeller 24-4-17
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door no entered worked from deck

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel John Spence & Sons Ltd
 Total Heating Surface of Boilers 8430 sq ft Forced Draft fitted yes No. and Description of Boilers three single ended marine
 Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 5-3-17 No. of Certificate 3388
 Can each boiler be worked separately yes Area of fire grate in each boiler oil fuel - none No. and Description of Safety Valves to
 each boiler two direct spring Area of each valve 12.56 sq ft Pressure to which they are adjusted 205 Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers on woodwork 22" Mean dia. of boilers 15'-9" Length 11'-9" Material of shell plates steel
 Thickness 1 1/2" Range of tensile strength 29-32 1/2" Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR
 long. seams DBS, TR Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10 1/16" Lap of plates or width of butt straps 22 1/8"
 Per centages of strength of longitudinal joint ribs 86.6 Working pressure of shell by rules 217 Size of manhole in shell 16 x 12"
 Size of compensating ring in head 11 x 1 3/16 No. and Description of Furnaces in each boiler 3 main board Material steel Outside diameter 4'-2 1/2"

Length of plain part top 4" Thickness of plates bottom 6 1/4" Description of longitudinal joint welded No. of strengthening rings yes
 Working pressure of furnace by the rules 205 Combustion chamber plates: Material steel Thickness: Sides 6 1/4" Back 3 1/2" Top 4 5/8" Bottom 1"
 Pitch of stays to ditto: Sides 9 1/8 x 9 1/4" Back 10 1/8 x 8 5/8" Top 9 1/4 x 9" If stays are fitted with nuts or riveted heads nuts in Working pressure by rules 202
 Material of stays steel Diameter at smallest part 2.030" Area supported by each stay 44.60" Working pressure by rules 208 End plates in steam space
 Material steel Thickness 1 1/16" Pitch of stays 22 x 20 3/4" How are stays secured DN Working pressure by rules 202 Material of stays steel
 Diameter at smallest part 8.200" Area supported by each stay 420.0" Working pressure by rules 204 Material of Front plates at bottom steel
 Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 16 x 8 7/8" Working pressure of plate by rules 208
 Diameter of tubes 2 1/2" Pitch of tubes 3 5/8 x 3 3/4" Material of tube plates steel Thickness: Front 1" Back 1 3/16" Mean pitch of stays 9 1/4"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 210 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 2 @ 8 5/8 x 7 1/8" Length as per rule 3'-9 1/4" Distance apart 9" Number and pitch of stays in, each 2 @ 9 1/4"
 Working pressure by rules 202 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked
 separately no 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 _____

