

REPORT ON MACHINERY.

No. 10120

Rpt. 4.

Received at London Office

Date of writing Report 19th When handed in at Local Office 8/6/18 Port of Middlesbrough Date, First Survey 10th April 1918 Last Survey 29th May 1918
 No. in Survey held at Middlesbrough Reg. Book. on the hull 55 REX MORE
 Master Foxworthy Built at Sunderland By whom built Sir James Caird & Sons (Newcastle) When built 1918
 Engines made at Middlesbrough By whom made Richardson Westgarth & Co Ltd when made 1918
 Boilers made at Middlesbrough By whom made Richardson Westgarth & Co Ltd when made 1918
 Registered Horse Power 412 Owners Johnston Line Co Port belonging to Liverpool
 Nom. Horse Power as per Section 28 412 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 29.40.80 Length of Stroke 54 Revs. per minute Dia. of Screw shaft as per rule 5.96 as fitted 16.3/4 Material of screw shafts 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 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 Length of stern bush 5-6 3/4
 Dia. of Tunnel shaft as per rule 14.65 as fitted 14 7/8 Dia. of Crank shaft journals as per rule 15.38 as fitted 15 3/4 Dia. of Crank pin 16 1/4 Size of Crank webs 31 40 1/2 Dia. of thrust shaft under
 collars 16 7/8 Dia. of screw 8-9 Pitch of Screw 10-0 No. of Blades 4 State whether moveable No Total surface 114.5 #
 No. of Feed pumps 2 Diameter of ditto 9 Stroke 21 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 30 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps Bull's 9+11 10 Gun S&W 8+6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 @ 3 1/2 2 @ 3 (well) 2-3 1/2 In Holds, &c. 2-3 1/2 deep tank fore + deep tank aft
 No. of Bilge Injections sizes 10 Connected to condenser, 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 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 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
 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 Engine room top grating.

BOILERS, &c.—(Letter for record 5.) Manufacturers of Steel John Spenser & Son
 Total Heating Surface of Boilers 11000 Is Forced Draft fitted Yes No. and Description of Boilers Two Cyl. Marine Type
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 20-3-18 No. of Certificate 5844
 Can each boiler be worked separately Yes Area of fire grate in each boiler 62.4 # No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 11.04 # Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 20 Mean dia. of boilers 15-9 Length 12-0 Material of shell plates Steel
 Thickness 3/16 Range of tensile strength 29-33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 3 R lap.
 long. seams S.R Butt Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 0 5/8 Lap of plates or width of butt straps 2 1/8
 Per centages of strength of longitudinal joint rivets 89.7 plate 85.07 Working pressure of shell by rules 208 lbs Size of manhole in shell 16 3/4 x 20 3/4
 Size of compensating ring 1 3/4 x 2-8 3/4 No. and Description of Furnaces in each boiler 3-Diphan Material Steel Outside diameter 4-1 3/4
 Length of plain part top 29-2 1/2 bottom 29-2 1/2 Thickness of plates 2 1/32 Description of longitudinal joint weld No. of strengthening rings
 Working pressure of furnace by the rules 210 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 1 5/16
 Pitch of stays to ditto: Sides 8x8 Back 8x8 Top 8 5/8 x 4 1/2 If stays are fitted with nuts or riveted heads nutted Working pressure by rules 223 lbs
 Material of stays Steel Area at smallest part 1.43 Area supported by each stay 66.8 Working pressure by rules 204 lbs End plates in steam space:
 Material Steel Thickness 1 3/16 Pitch of stays 21.31 x 16 3/4 How are stays secured nutted Working pressure by rules 182 lbs Material of stays Steel
 Area at smallest part 4.02 Area supported by each stay 348.5 Working pressure by rules 210 lbs Material of Front plates at bottom Steel
 Thickness 3/32 Material of Lower back plate Steel Thickness 2 1/32 Greatest pitch of stays 14x8 Working pressure of plate by rules 189
 Diameter of tubes 2 1/2 Pitch of tubes 3 1/16 x 3 3/4 Material of tube plates Steel Thickness: Front 3 1/32 Back 1 3/16 Mean pitch of stays 9.31
 Pitch across wide water spaces 13 1/2 Working pressures by rules 184 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 3/4 x 1 3/4 Length as per rule 2-8 9/16 Distance apart 8 5/8 Number and pitch of stays in each 3 @ 4 1/2
 Working pressure by rules 203 lbs Steam dome: description of joint to shell none % 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
 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



