

REPORT ON MACHINERY.

No. 73810

WED NOV. 17 1920

Date of writing Report Nov 12th 1920 When handed in at Local Office Nov 13th 1920 Port of NEWCASTLE-ON-TYNE
 Date, First Survey June 29th Last Survey Nov 12th 1920
 Survey held at Mallesend-on-Tyne on the Steel Screw Steamer "Whitemantle"
 Built at Newcastle By whom built Wood Skinner & Co Ltd
 Engines made at Scotstoun By whom made Larson & Co Ltd (1456) when made 1920
 Boilers made at Mallesend-on-Tyne By whom made North Eastern Marine & Co Ltd (No 2457) when made 1920
 Registered Horse Power 208 Owners Gas Light and Coke Co Ltd Port belonging to London
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines
 No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20-33-54 Length of Stroke 36 Revs. per minute 72 Dia. of Screw shaft 11.3 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 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 4-11
 Dia. of Tunnel shaft 9.93 Dia. of Crank shaft journals 10.45 Dia. of Crank pin 10.74 Size of Crank webs 11.3 Dia. of thrust shaft under 10.54
 Dia. of screw 14-5 Pitch of Screw 14-8 No. of Blades 4 State whether moveable No Total surface 61.5
 No. of Feed pumps 2 Diameter of ditto 4-3 Stroke 5-3 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4-3 Stroke 5-3 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 5-3 & 3-3 No. and size of Suctions connected to both Bilge and Donkey pumps 2-3
 Engine Room 4-3 In Holds, &c. 2-3 after hold. 2-3 fore hold. 2-3
 No. of Bilge Injections 2 Connected to condenser, on to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 of 3
 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 Yes
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks No
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above the deep water line Yes
 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
 Are pipes carried through the bunkers None How are they protected None
 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 Upper platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel John Spencer
 Total Heating Surface of Boilers 3440 Is Forced Draft fitted No No. and Description of Boilers 2 Single ended
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 2/9/20 No. of Certificate 9455
 Can each boiler be worked separately Yes Area of fire grate in each boiler 49.5 No. and Description of Safety Valves to each boiler 2 Spring loaded
 Area of each valve 5.94 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12 Mean dia. of boilers 13-9 Length 10-6 Material of shell plates steel
 Thickness 1.32 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. Lap
 Diameter of rivet holes in long. seams 1.3 Pitch of rivets 8.3 Lap of plates or width of butt straps 18
 Percentages of strength of longitudinal joint 86.7 Working pressure of shell by rules 181 Size of manhole in shell 16" x 12"
 No. of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Horizontal Material steel Outside diameter 38.2
 Thickness of plates 1.2 Description of longitudinal joint Welded No. of strengthening rings 1
 Working pressure of furnace by the rules 196 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 13/16
 Area of stays to ditto: Sides 10.5 x 9.5 Back 10.5 x 9.5 Top 10.5 x 9.5 If stays are fitted with nuts or riveted heads No Working pressure by rules 180
 Material of stays steel Area at smallest part 2.03 Area supported by each stay 9.9 Working pressure by rules 185 End plates in steam space: steel
 Thickness 1.8 Pitch of stays 24 x 19.4 How are stays secured Double nuts Working pressure by rules 185 Material of stays steel
 Area at smallest part 8.29 Area supported by each stay 4.74 Working pressure by rules 182 Material of Front plates at bottom steel
 Thickness 1 Material of Lower back plate steel Thickness 1.5 Greatest pitch of stays 14.2 x 10.8 Working pressure of plate by rules 191
 Pitch of tubes 4.2 x 4.2 Material of tube plates steel Thickness: Front 1 Back 3/4 Mean pitch of stays 9.4
 Working pressures by rules 182 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9.4 x 1.2 Length as per rule 31 Distance apart 10.2 Number and pitch of stays in each 2-9.5
 Working pressure by rules 193 Steam dome: description of joint to shell Yes % of strength of joint 100
 Thickness of shell plates 1.2 Material steel Description of longitudinal joint Welded Diam. of rivet holes 1.2
 Working pressure of shell by rules 193 Crown plates 1.2 Thickness 1.2 How stayed Double nuts
SUPERHEATER. Type Horizontal Date of Approval of Plan 2/9/20 Tested by Hydraulic Pressure to 180
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Pressure to which each is adjusted 180 Is Easing Gear fitted Yes

