

REPORT ON MACHINERY.

No. 27447

Received at London Office

Date of writing Report 19 When handed in at Local Office 11 MAR 1919 19 Port of SUNDERLAND. WED. 12 MAR. 1919

No. in Survey held at Sunderland Date, First Survey 22 Mar. '17 Last Survey March 5th 1919
Reg. Book. Steel S/S WESTCLIFF (Number of Visits 34)

Master Beeching Built at Sunderland By whom built Priestman & Co (264) Tons Gross 4747 Net 2963
When built 1919

Engines made at Sunderland By whom made G. Clark Ltd (1062) when made 1919

Boilers made at Sunderland By whom made G. Clark Ltd (1062) when made 1919

Registered Horse Power Owners Cliffside Shipping Co. Port belonging to Newcastle

Nom. Horse Power as per Section 28 384 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Liph No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25, 41, 67 Length of Stroke 45 Revs. per minute 74 Dia. of Screw shaft as per rule 13.92 as fitted 14 Material of screw shaft 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 No 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 5.3

Dia. of Tunnel shaft as per rule 12.41 as fitted 12.41 Dia. of Crank shaft journals as per rule 13.02 as fitted 13.02 Dia. of Crank pin 13.5 Size of Crank webs 8 1/2 x 19 1/2 Dia. of thrust shaft under collars 13 1/2

Dia. of screw 17.0 Pitch of Screw 15.6 No. of Blades 4 State whether moveable No Total surface 92.5

No. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 26 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 26 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 9x10x10, 7 1/2x5x6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 @ 3 1/2 In Holds, &c. 2 in fore hold 3 1/2, 2 fore main hold 3 1/2, 2 in after main hold 3 1/2, 2 in after hold 3 1/2, 1 in after hold 2 1/2

No. of Bilge Injections 1 sizes 6 Connected to condenser to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 4 1/2 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 Yes

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 No

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 S) Manufacturers of Steel Spencer & Sons

Total Heating Surface of Boilers 5364.9 Is Forced Draft fitted Yes No. and Description of Boilers Three Single Ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 10.1.19 No. of Certificate 3523

Can each boiler be worked separately Yes Area of fire grate in each boiler 43.9 No. and Description of Safety Valves to each boiler 2 Spring Valves

Area of each valve 7.6 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork No bunkers in 9a. Mean dia. of boilers 13.6 Length 10.6 Material of shell plates S

Thickness 1 1/2 Range of tensile strength 29 1/2 - 33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams No riv long

long. seams N. 1/2 W. Riv. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 7 3/8 Lap of plates or width of butt straps 16

Per centages of strength of longitudinal joint rivets 86.6 Working pressure of shell by rules 180 Size of manhole in shell 16 x 12

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Plain Material S Outside diameter 3-3 3/4

Length of plain part top 6-4 1/2 bottom 5-11 1/2 Thickness of plates crown 3 1/2 Description of longitudinal joint None No. of strengthening rings -

Working pressure of furnace by the rules 180 Combustion chamber plates: Material S Thickness: Sides 1/2 Back 1/4 Top 1/2 Bottom 1/2

Pitch of stays to ditto: Sides 9 1/2 x 9 1/2 Back 10 1/2 x 9 1/2 Top 10 x 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180

Material of stays S Area at smallest part 2.03 Area supported by each stay 93.6 Working pressure by rules 195 End plates in steam space:

Material S Thickness 1 3/2 Pitch of stays 20 3/4 x 18 How are stays secured N x L Working pressure by rules 180 Material of stays S

Area at smallest part 7.06 Area supported by each stay 386 Working pressure by rules 189 Material of Front plates at bottom S

Thickness 1 3/2 Material of Lower back plate S Thickness 2 9/32 Greatest pitch of stays 15 1/2 x 9 1/4 Working pressure of plate by rules 181

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates S Thickness: Front 13/16 Back 3/4 Mean pitch of stays 9 3/16

Pitch across wide water space 14 x 14 Working pressures by rules 262 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 8 x 13 1/4 Length as per rule 31 Distance apart 9 Number and pitch of stays in each 2, 9 % of strength of joint -

Working pressure by rules 184 Steam dome: description of joint to shell - Diam. of rivet holes -

Diameter - Thickness of shell plates - Material - Description of longitudinal joint - How stayed -

Pitch of rivets - Working pressure of shell by rules - Crown plates - Thickness -

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 -

1110-9113



