

REPORT ON MACHINERY.

No. 27855

Received at London Office

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Reporting Report 24-6-1920 When handed in at Local Office 25-6-1920 Port of SUNDERLAND

Survey held at Sunderland Date, First Survey 11 June 1920 Last Survey 15 June 1920
(Number of Visits 46) Gross 934 Tons Net 489

on the Machinery of the new steel S.S. FLASHLIGHT
Built at Sunderland By whom built S. P. Austin & Son, Ltd. (No. 29) When built 1920-6

made at Sunderland By whom made Messrs. Richardson's Westforth & Co. (No. 2129) when made 1920

made at do By whom made do when made 1920

Indicated Horse Power _____ Owners Gaslight & Coke Co. Port belonging to London

Indicated Horse Power as per Section 28 117 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

Engines, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Cylinders 16, 24, 44 Length of Stroke 30 Revs. per minute 80 Dia. of Screw shaft as per rule 9.2 Material of screw shaft Iron
as fitted 9.5

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

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

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two

are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 3-2

Tunnel shaft as per rule 8.04 Dia. of Crank shaft journals as per rule 8.47 Dia. of Crank pin 8.3 Size of Crank webs 5 1/2 x 16 1/4 Dia. of thrust shaft under

as fitted None as fitted 8.3 No. of Blades 4 State whether moveable No Total surface 44

Feed pumps 2 Diameter of ditto 2 1/2 Stroke 16 Can one be overhauled while the other is at work Yes

Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 16 Can one be overhauled while the other is at work Yes

Donkey Engines 3 Sizes of Pumps 9 x 11 x 10, 4 1/2 x 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room 2 @ 3 In Holds, &c. Fore Hold 2 @ 3, Main Hold 2 @ 3

Bilge Injections 1 sizes 4 1/2 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room of size Yes, 3 1/2

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

connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

are 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

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

pipes are carried through the bunkers None How are they protected _____

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Machinery aft.

Boilers, &c.—(Letter for record S) Manufacturers of Steel John Spencer & Sons, Ltd. 15B

Heating Surface of Boilers 1822 Is Forced Draft fitted No No. and Description of Boilers One cylindrical S.E. Multitubular

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3-11-19 No. of Certificate 3623

Can each boiler be worked separately Yes Area of fire grate in each boiler 49.6 No. and Description of Safety Valves to

each boiler Two spring loaded Area of each valve 7.07 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Clearance between boilers or uptakes and bunkers or woodwork 1-6 Mean dia. of boilers 14-0 Length 10-6 Material of shell plates Steel

Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. lap

BS, T.R. Diameter of rivet holes in long. seams 13/16 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 18

Stages of strength of longitudinal joint rivets 86.2 Working pressure of shell by rules 180.2 Size of manhole in shell 16 x 12
plate 86

Compensating ring No. and Description of Furnaces in each boiler Three Duffton Material Steel Outside diameter 3-7

Thickness of plates crown 1 1/4 Description of longitudinal joint welded No. of strengthening rings _____
bottom 3/32

Working pressure of furnace by the rules 190 Combustion chamber plates: Material Steel Thickness: Sides 11/16 Back 23/32 Top 11/16 Bottom 13/16

Number of stays to ditto: Sides 9 3/4 x 9 1/4 Back 10 3/8 x 9 1/4 Top 9 3/8 x 9 If stays are fitted with nuts or riveted heads nuts inside Working pressure by rules 180.9

Material of stays Steel Area at smallest part 2.03 Area supported by each stay 96 Working pressure by rules 190.3 End plates in steam space:

Material Steel Thickness 1 1/32 Pitch of stays 23 3/4 x 19 1/2 How are stays secured D.N. + W. Working pressure by rules 188 Material of stays Steel

Area at smallest part 8.48 Area supported by each stay 463 Working pressure by rules 190 Material of Front plates at bottom Steel

Thickness 25/32 Material of Lower back plate Steel Thickness 29/32 Greatest pitch of stays 133 Working pressure of plate by rules 195

Number of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates Steel Thickness: Front 25/32 Back 25/32 Mean pitch of stays 11

Clearance across wide water spaces 14 1/4 Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 9 x 1 1/2 Length as per rule 2-8 1/2 Distance apart 9 3/8 Number and pitch of stays in each 2 @ 9

Working pressure by rules 187 Steam dome: description of joint to shell _____ Diam. of rivet holes _____

Material _____ Thickness _____ How stayed _____

Working pressure of shell by rules _____ Crown plates _____ Thickness _____

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 _____ Is Easing Gear fitted _____

Pressure to which each is adjusted _____

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