

Date of writing Report 28th March 18 When handed in at Local Office 1. 6. 18 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle Date, First Survey 22nd Jan 1918 Last Survey 28th May 1918
 Reg. Book. on the S.S. "Wal" Barrage (Number of Visits 66) Tons { Gross 2301 Net 1299

Master Built at Blyth By whom built Blyth S.B. & S. Co When built 1918
 Engines made at Newcastle By whom made N.E. Maine Eng Co when made 1918
 Boilers made at do By whom made do when made 1918

Registered Horse Power Owners The Shipping Controller Port belonging to London
 Nom. Horse Power as per Section 28 417 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 25" 41" 68" Length of Stroke 45" Revs. per minute 80 Dia. of Screw shaft 13.4" Material of screw shaft Iron
 as per rule 13.28" as fitted 14.5"

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 yes Length of stern bush 5'-0"

Dia. of Tunnel shaft 12.41" Dia. of Crank shaft journals 13.03" Dia. of Crank pin 13.4" Size of Crank webs 27 1/2" x 8 3/4" Dia. of thrust shaft under
 collars 13 1/4" Dia. of screw 15'-6" Pitch of Screw 17'-0" No. of Blades 4 State whether moveable no Total surface 75 sq ft

No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps 10 1/2" x 12 1/2" x 21", 9 1/2" x 7 1/2" x 18", 9 1/2" x 7" x 18" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3" In Holds, &c. Forward & after main hold each 3"
After hold each 1-3" Tunnel Well 1-2 1/2"

No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 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 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 stowhold plates yes Are the Discharge Pipes above or below the deep water line Both
 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 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 27.2.18 of Stern Tube 27.2.18 Screw shaft and Propeller 5.3.18
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door no worked from yes

OILERS, &c.—(Letter for record S) Manufacturers of Steel John Spence & Sons
 Total Heating Surface of Boilers 6022 sq ft Is Forced Draft fitted yes No. and Description of Boilers Two, single-ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 1-26.2.18 No. of Certificates 905-8
945-9

Can each boiler be worked separately yes Area of fire grate in each boiler 75 sq ft No. and Description of Safety Valves to
 each boiler Two, spring Area of each valve 12.56 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers as per rules and bunkers on woodwork 14" Mean dia. of boilers 16'-3 5/16" Length 11'-9" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 28 3/4 - 33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 8 Lap
 long. seams 1 BS & Riv Diameter of rivet holes in long. seams 3 3/8" Pitch of rivets 9 3/8" Lap of plates or width of butt straps 20 1/2"

Per centages of strength of longitudinal joint rivets 87.6 Working pressure of shell by rules 192 lbs Size of manhole in shell 16" x 12"
 plate 85.3 Size of compensating ring Flanged No. and Description of Furnaces in each boiler 4 - Heighton's Material Steel Outside diameter 44 1/2"

Length of plain part top 9" Thickness of plates crown 9" Description of longitudinal joint Welded No. of strengthening rings yes
 bottom 7 1/2" Working pressure of furnace by the rules 198 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 3/4" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 10 1/2" x 8 3/4" Back 10 1/2" x 9 1/2" Top 10 1/2" x 8 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 199 lbs
 Material of stays Steel Diameter at smallest part 2.03 in Area supported by each stay 88.7 sq in Working pressure by rules 206 lbs End plates in steam space:
 Material Steel Thickness 1 1/2" Pitch of stays 24" x 22 1/2" How are stays secured in U Working pressure by rules 181 lbs Material of stays Steel

Diameter at smallest part 9.62 in Area supported by each stay 54.0 sq in Working pressure by rules 185 lbs Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 13 3/4" Working pressure of plate by rules 194 lbs

Diameter of tubes 2 3/4" Pitch of tubes 4" x 3 3/8" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 9 1/2"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 189 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10" x 1 3/4" Length as per rule 35 1/2" Distance apart 10 1/8" Number and pitch of stays in each 3 - 8 3/4"

Working pressure by rules 194 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes

Stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

