

REPORT ON MACHINERY.

Port of MIDDLESBROUGH-ON-TEES.

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No. in Survey held at Stockton

Date, first Survey 8th Jan'y 1906 Last Survey 30th March 1906

Reg. Book. 48 on the Steel S.S. "EDA".

(Number of Visits 30)

Tons } Gross 2650
Net

Master _____ Built at Stockton By whom built Richardson Duck & Co When built 1906

Engines made at Stockton By whom made Blain & Co Ltd when made 1906

Boilers made at Stockton By whom made Blain & Co Ltd when made 1906

Registered Horse Power _____ Owners Burdick & Cook Port belonging to London

Nom. Horse Power as per Section 28 257 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Direct acting, trip, upstroke No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 23-38-62 1/2 Length of Stroke 42 Revs. per minute 57 Dia. of Screw shaft as per rule 13-8 Material of screw shaft W 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

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 Yes If two

liners are fitted, is the shaft lapped for protected between the liners Yes Length of stern bush 5'-0"

Dia. of Tunnel shaft as per rule 11-24 Dia. of Crank shaft journals as per rule 11-58 Dia. of Crank pin 12 3/4 Size of Crank webs 19 3/4 x 8 1/2 Dia. of thrust shaft under

collars 12 3/4 Dia. of screw 16-6 Pitch of screw 16 fms No. of blades 4 State whether moveable No Total surface 76 sq

No. of Feed pumps 2 Diameter of ditto 3 Stroke 30 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work Yes

No. of Donkey Engines Two Sizes of Pumps Bell & 9x10 Feed 4x8 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 3 1/2 diam One 3 1/2 diam In Holds, &c. Two each hold 3 diam

Tunnel well, 2 1/2 diam

No. of bilge injections 1 sizes 6 1/4 Connected to condenser, or to circulating pump L.P. Is a separate donkey suction fitted in Engine room & size Yes 4"

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 No

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock New vessel Is the screw shaft tunnel watertight See ship's reports.

Is it fitted with a watertight door Yes worked from Top platform.

BOILERS, &c.—No. of Certificate 3610 (Letter for record S) Total Heating Surface of Boilers 3900 sq Is forced draft fitted No

No. and Description of Boilers Two Cylindrical Tubular Working Pressure 160 lb Tested by hydraulic pressure to 320 lb

Date of test 23-2-06 Can each boiler be worked separately Yes Area of fire grate in each boiler 55 sq No. and Description of safety valves to

each boiler Two Spring Area of each valve 8.29 sq Pressure to which they are adjusted 165 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Dia. of boilers 15'-0" Length 10'-0" Material of shell plates Steel

Thickness 1 7/32 Range of tensile strength 20/32 Are they welded or flanged No Descrip. of riveting: cir. seams 2 D 7 in long seams D Butt 1/2 in

Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets One row 8 1/2 Two 4 1/2 Lap of plates or width of butt straps 1-6 1/2

Per centages of strength of longitudinal joint rivets 92.8 % Working pressure of shell by rules 165 lb Size of manhole in shell 17" x 13"

Size of compensating ring 31 x 27 x 1 5/32 No. and Description of Furnaces in each boiler 3 Composite Material Steel Outside diameter 3'-10"

Length of plain part top 6-3 bottom 6-6 3/4 Thickness of plates crown 1 1/32 bottom 1 1/32 Description of longitudinal joint Welded No. of strengthening rings No

Working pressure of furnace by the rules 177 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 3/4

Pitch of stays to ditto: Sides 9 3/4 x 9 7/8 Back 9 3/4 x 9 3/4 Top 9 3/4 x 9 3/4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 171 lb

Material of stays Steel Diameter at smallest part 1 9/16 Area supported by each stay 95 sq Working pressure by rules 181.5 lb End plates in steam space:

Material Steel Thickness 1 5/32 Pitch of stays 19 x 20 How are stays secured N & W Working pressure by rules 166 lb Material of stays Steel

Diameter at smallest part 2 7/8 Area supported by each stay 330 sq Working pressure by rules 170 lb Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 16 x 9 3/4 Working pressure of plate by rules 197 lb

Diameter of tubes 3 1/4 Pitch of tubes 14 1/2 x 4 5/8 Material of tube plates Steel Thickness: Front 1" Back 1 3/16 Mean pitch of stays 10 5/8

Pitch across wide water spaces 14 1/2 Working pressures by rules 182 lb Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 7 x 1 1/2 Length as per rule 26 1/4 Distance apart 9 3/4 Number and pitch of Stays in each Two 9 1/2

Working pressure by rules 169 lb Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately Yes Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet

holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

if stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____



