

REPORT ON MACHINERY.

Port of Sunderland Received at London Office 11.13 SEP 1910
 No. in Survey held at Sunderland Date, first Survey 1910 25th May Last Survey 2nd September 1910
 Reg. Book. on the SS "Woorlands" (Number of Visits 1st)
 Master C. R. Wood Built at Sunderland By whom built New Bedford & Sons Ltd (Ltd) Tons {Gross 3600
 Engines made at Sunderland By whom made New Bedford & Sons Ltd (No 418) when made 1910 Net 2281
 Boilers made at do By whom made do (No 418) when made 1910
 Registered Horse Power _____ Owners The Eskside Steam Shipping Co Port belonging to Whitby
 Nom. Horse Power as per Section 28 331 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
 Dia. of Cylinders 25" x 40" x 64" Length of Stroke 45" Revs. per minute 54 Dia. of Screw shaft 14 1/2" Material of shaft High 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
 Is 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 _____ Length of stern bush 8-2 1/2"
 Dia. of Tunnel shaft 12-3/4" Dia. of Crank shaft journals 13-9/16" Dia. of Crank pin 13-7/8" Size of Crank webs 9 1/2" Dia. of thrust shaft under
 collars 13-3/8" Dia. of screw 11-6" Pitch of Screw 20-0" No. of Blades 4 State whether moveable No Total surface 95 sq ft
 No. of Feed pumps 2 Diameter of ditto 4 1/4" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 1 @ 6" x 4" x 6", 1 @ 4 1/2" x 2 3/4" x 4", 1 @ 9" x 9" x 9" No. and size of Suctions connected to both Bilge and Donkey pumps
 in Engine Room 2 @ 3 1/2" dia + 2 @ 3 1/2" in bilge room In Holds, &c. 2 @ 3 1/2" in each hold
 No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 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 _____
 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 5-8-10 of Stern Tube 5-9-10 Screw shaft and Propeller 17-8-10
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top Platform

OILERS, &c.—(Letter for record _____) Manufacturers of Steel John Spence & Sons Newburn Steel Works
 Total Heating Surface of Boilers 5224 sq ft Is Forced Draft fitted No No. and Description of Boilers Two Single ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 25-7-10 No. of Certificate 2845
 Can each boiler be worked separately Yes Area of fire grate in each boiler 61.2 sq ft No. and Description of Safety Valves to
 each boiler One double spring loaded Area of each valve 12.566 sq in 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 18" Mean dia. of boilers 16-6" Length 11-0" Material of shell plates Steel
 Thickness 1 5/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.
 long. seams T.R.D.B.S Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 8 1/16" Lap of plates or width of butt straps 19 1/4" x 1 5/8"
 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules 180.1 Size of manhole in shell 16" x 12"
 Size of compensating ring Dished No. and Description of Furnaces in each boiler 3. Cor. Trough Material Steel Outside diameter 57 1/4"
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint weld No. of strengthening rings None
 Working pressure of furnace by the rules 180.4 Combustion chamber plates: Material Steel Thickness: Sides 3/32" Back 2 1/32" Top 4 3/32" Bottom 1 13/32"
 Pitch of stays to ditto: Sides 9 1/8" x 9 1/8" Back 9 1/8" x 9 1/8" Top 9 1/8" x 9 1/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181 lbs
 Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 82 sq in Working pressure by rules 222 lbs End plates in steam space:
 Material Steel Thickness 1 5/8" Pitch of stays 19 x 18 3/8" How are stays secured D.N. Wash Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 2 1/8" Area supported by each stay 248 sq in Working pressure by rules 180 lbs Material of Front plates at bottom Steel
 Thickness 1 1/2" Material of Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 13" Working pressure of plate by rules 182 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 1 5/16" Back 3/4" Mean pitch of stays 9 1/8"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 185 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 36 3/4" Distance apart 9 1/2" Number and pitch of stays in each 3 @ 9"
 Working pressure by rules 182 lbs 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 Yes 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 _____

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