

REPORT ON MACHINERY.

No. 17035

Port of Hull

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No. in Survey held at Hull Date, first Survey Mar 1st Last Survey 15th July 1905
 Reg. Book. 2 Buff on the Steel Ss. Ks. Orpheus (Number of Visits 30) Tons { Gross 228 Net 91
 Master _____ Built at Selby By whom built Locheane Sons When built 1905
 Engines made at Hull By whom made Amos Smith when made 1905
 Boilers made at Hull By whom made Amos Smith when made 1905
 Registered Horse Power _____ Owners E. Bacon & Co. Port belonging to Grimby
 Nom. Horse Power as per Section 28 68.8 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 12-21-34 Length of Stroke 24 Revs. per minute 112 Dia. of Screw shaft as per rule 6.99 Material of Iron
 as fitted 7 3/8 screw shaft)
 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 burned 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 _____ Length of stern bush 36
 Dia. of plain part as per rule 6.26 Dia. of Crank shaft journals as per rule 6.57 Dia. of Crank pin 6 3/4 Size of Crank webs 10 1/2 x 4 3/4 Dia. of thrust shaft under
 collars 6 3/8 Dia. of screw 8-6 Pitch of screw 10-6 No. of blades 4 State whether moveable No Total surface 30 sq
 No. of Feed pumps One Diameter of ditto 2 5/8 Stroke 13 Can one be overhauled while the other is at work _____
 No. of Bilge pumps One Diameter of ditto 3 Stroke 13 Can one be overhauled while the other is at work _____
 No. of Donkey Engines One Sizes of Pumps 3" x 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2" In Holds, &c. One each, 2" to each slush
well, & to hold, and ejector suction from Eng. Bilge & holds
 No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump pump a separate donkey suction fitted in Engine room & size Yes 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 0
 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 hold suction How are they protected wood casing
 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 before launching Is the screw shaft tunnel watertight None
 Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.— (Letter for record 8) Total Heating Surface of Boilers 1164 sq Is forced draft fitted No
 No. and Description of Boilers One Cyl. Multi Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs
 Date of test 26.5.05 Can each boiler be worked separately _____ Area of fire grate in each boiler 34 sq No. and Description of safety valves to
 each boiler Two Spring Area of each valve 3.98 sq 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 5 1/2 Mean dia. of boilers 12' 0" Length 10' 0" Material of shell plates Steel
 Thickness 1" Range of tensile strength 28-32 Are they welded or flanged _____ Descrip. of riveting: cir. seams L. D. long. seams D. B. S. J. R.
 Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7.63 Lap of plates or width of butt straps 16 1/2
 Per centages of strength of longitudinal joint rivets 96.5 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"
 plate 85.2 Size of compensating ring 40" x 30" x 1" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 42 3/4
 Length of plain part top 5-7 Thickness of plates bottom 6.4 Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 190 lbs Combustion chamber plates: Material Steel Thickness: Sides 33/32 Back 11/16 Top 10/16 Bottom 23/32
 Pitch of stays to ditto: Sides 9 1/2 x 7 Back 9 1/2 x 8 1/2 Top 7 1/2 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 207 lbs
 Material of stays Steel Diameter at smallest part 1 1/2 Area supported by each stay 64.75 sq Working pressure by rules 217 lbs End plates in steam space:
 Material Steel Thickness 31/32 Pitch of stays 16" x 15 1/2 How are stays secured secured into boilerhead plates & fitted with nuts & washers outside Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 2 3/4 Area supported by each stay 24.4 sq Working pressure by rules 206 lbs Material of Front plates at bottom Steel
 Thickness 29/32 Material of Lower back plate Steel Thickness 1 5/8 Greatest pitch of stays 14 Working pressure of plate by rules 180 lbs
 Diameter of tubes 3 1/2 Pitch of tubes 5 x 4 1/2 Material of tube plates Steel Thickness: Front 29/32 Back 27/32 Mean pitch of stays 9 1/2" x 10"
 Pitch across wide water spaces 14 Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 1/2" x 2" Length as per rule 2' 9" Distance apart 8 Number and pitch of Stays in each 3 ~ 7 1/2
 Working pressure by rules 180 lbs Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked
 separately _____ 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 _____

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