

REPORT ON MACHINERY.

Port of WEST HARTLEPOOL

MAR. 29

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Circular No 705

No. in Survey held at West Hartlepool Date, first Survey 21st Febry 1905 Last Survey 10th June 1904
 Reg. Book. 120 on the Steel Steamer "Cambyses" (Number of Visits 62) Tons Gross 3184.00
 Master J. W. Simmons Built at West Hartlepool By whom built W. Gray & Co Ltd When built 1905
 Engines made at West Hartlepool By whom made Central Marine & Works when made 1905
 Boilers made at West Hartlepool By whom made Central Marine & Works when made 1905
 Registered Horse Power _____ Owners Hobson & Co Port belonging to West Hartlepool
 Nom. Horse Power as per Section 28 191 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 24 1/2" 40" 65" Length of Stroke 42" Revs. per minute 65 Dia. of Screw shaft 13 1/2" Material of W. Iron
 as per rule 13 1/2" as fitted 13 1/2" 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 one length 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 55"
 Dia. of Tunnel shaft 11 1/2" as per rule 11 1/2" as fitted 12 1/2" Dia. of Crank shaft journals 12 1/2" as per rule 12 1/2" as fitted 12 1/2" Dia. of Crank pin 12 1/2" Size of Crank webs 19 1/2" Dia. of thrust shaft under
 collars 12 1/2" Dia. of screw 16 10" Pitch of screw 15 1/2" No. of blades 4 State whether moveable No Total surface 86 sq ft
 No. of Feed pumps Two Diameter of ditto 3 1/2" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two Diameter of ditto 4" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Two Sizes of Pumps 10 1/2" 6 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3 1/2" In Holds, &c. Eight 3" 1 1/2" 1"
 No. of bilge injections Two sizes 6 1/2" Connected to condenser, or to circulating pump Yes 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 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 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 _____ 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Jan 2005 Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from Up Staircase

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 44204 sq ft Is forced draft fitted No
 No. and Description of Boilers Two 4 cyl Ended Cyl boiler Working Pressure 180 lb Tested by hydraulic pressure to 360 lb
 Date of test 17/5/05 Can each boiler be worked separately Yes Area of fire grate in each boiler 56 sq ft No. and Description of safety valves to
 each boiler Two Spring Area of each valve 0.29 sq Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18 1/2" Mean dia. of boilers 15 1/2" Length 10 1/2" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 37.30 Are they welded or flanged both Descrip. of riveting: cir. seams _____ long. seams all ship
 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9" Lap of plates or width of butt straps 19 1/2"
 Per centages of strength of longitudinal joint 55.10 Working pressure of shell by rules 180 lb Size of manhole in shell 5 1/2" 16" x 12"
 Size of compensating ring Hanged No. and Description of Furnaces in each boiler 3 Iron, horizontal Material Steel Outside diameter 45 7/8"
 Length of plain part 8" Thickness of plates 1 1/2" Description of longitudinal joint welded No. of strengthening rings rolled
 Working pressure of furnace by the rules 181 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1 1/2" Top 1 1/2" Bottom 1 1/2"
 Pitch of stays to ditto: Sides 8 1/2" Back 9 1/2" Top 9 1/2" If stays are fitted with nuts or riveted heads none Working pressure by rules 181 lb
 Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 9 1/2" x 9" Working pressure by rules 193 lb End plates in steam space:
 Material Steel Thickness 1 1/2" Pitch of stays 22 1/2" How are stays secured all nuts Working pressure by rules 180 lb Material of stays Steel
 Diameter at smallest part 3 1/2" Area supported by each stay 32 1/2" x 19 1/2" Working pressure by rules 185 lb Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 15 1/2" Working pressure of plate by rules 180 lb
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 1" Back 2 1/2" Mean pitch of stays 9"
 Pitch across wide water spaces 16 1/2" Working pressures by rules 189 lb Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 1/2" x 11 1/2" Length as per rule 30" Distance apart 8" Number and pitch of Stays in each two 9"
 Working pressure by rules 185 lb 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 _____



