

REPORT ON MACHINERY.

Port of WEST HARTLEPOOL

Survey held at Hartlepool Date, first Survey 13th June, 1901 Last Survey 7th March, 1902
 Book. Steel S.S. "Sloterdijk" (Number of Visits 85)
 Name of the Baron Built at H. Hartlepool By whom built Furness, Withy & Co. Ltd. When built 1902
 Engines made at Hartlepool By whom made Richardsons, Nestgarth & Co. Ltd. when made 1902
 Boilers made at do By whom made do do do when made 1902
 Registered Horse Power 490 Owners Netherlands American S. Nav. Co. Port belonging to Rotterdam
 Indicated Horse Power as per Section 28 489 Is Refrigerating Machinery fitted No. Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders three No. of Cranks three
 Diameter of Cylinders 28"-46"-44" Length of Stroke 48" Revs. per minute 40 Dia. of Screw shaft 15" as per rule 15" as fitted 16" Lgth. of stern bush 57 1/2"-4 1/2"
 Diameter of Tunnel shaft 15" Dia. of Crank shaft journals 14 3/4" as per rule 14 3/4" as fitted 14 3/4" Dia. of Crank pin 14 3/4" Size of Crank webs 9 1/2" x 23 1/2" Dia. of thrust shaft under
 Diameter of screws 18-0 Pitch of screw Ad. 17'-0" to 20'-0" No. of blades 4 State whether moveable Yes Total surface 90 sq. ft.
 Number of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 27" Can one be overhauled while the other is at work Yes
 Number of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 27" Can one be overhauled while the other is at work Yes
 Number of Donkey Engines 2 Sizes of Pumps Feed 6 x 8 duplex. Mallett 10 x 9. No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Four 3 1/2" dia. Pair of Mains pumps in Holds, &c. Thirteen. One 2 1/2" dia to fore peak, two 3 1/2" dia
 Diameter of bilge injections one sizes 4" 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
 Are all pipes 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
 Were stern tube, propeller, screw shaft, and all connections examined in dry dock new vessel Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from upper platform

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 8140 sq. ft. Is forced draft fitted No
 Number and Description of Boilers 4 Single ended. Cyl. Mult Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs.
 Date of test 3.12.01 Can each boiler be worked separately Yes. Area of fire grate in each boiler 54 sq. ft. No. and Description of safety valves to
 boiler Two Spring direct Area of each valve 4.06 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 22" Mean dia. of boilers 14'-6" Length 10'-6" Material of shell plates steel
 Thickness 1 1/32" Range of tensile strength 28-32 Are they welded or flanged no Descrip. of riveting: cir. seams treble long. seams treble
 Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 19 3/4"
 Percentages of strength of longitudinal joint 86-1 Working pressure of shell by rules 204 lbs. Size of manhole in shell 13" x 16 1/2"
 Diameter of compensating ring 30" x 30" x 1 1/2" No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 45 1/2"
 Length of furnace 6'-6" Thickness of plates 9" Description of longitudinal joint 14 lbs. weld No. of strengthening rings ✓
 Working pressure of furnace by the rules 193 lbs. Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/16"
 Diameter of stays to ditto: Sides 4 7/8" Back 4 7/8" Top 4 7/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 236 lbs.
 Material of stays steel Diameter at smallest part 1 3/8" Area supported by each stay 55 sq. in. Working pressure by rules 200 lbs. End plates in steam space:
 Material steel Thickness 1 5/16" Pitch of stays 15 1/4" x 13 1/2" How are stays secured to N. & W. Working pressure by rules 197 lbs. Material of stays steel
 Diameter at smallest part 2 1/2" Area supported by each stay 202 sq. in. Working pressure by rules 211 lbs. Material of Front plates at bottom steel
 Thickness 1 3/16" Material of Lower back plate steel Thickness 2 5/32" Greatest pitch of stays 12 5/8" Working pressure of plate by rules 190 lbs.
 Diameter of tubes 3 1/2" Pitch of tubes 4 5/8" Material of tube plates steel Thickness: Front 1 1/32" Back 2 5/32" Mean pitch of stays 9 1/4"
 Depth across wide water spaces 14 1/2" Working pressures by rules 194 lbs. Girders to Chamber tops: Material steel Depth and
 Thickness of girder at centre 4 1 5/8" Length as per rule 29' Distance apart 4 1/2" Number and pitch of Stays in each 2 - 4 7/8"
 Working pressure by rules 180 lbs. Superheater or Steam chest; how connected to boiler none 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
✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 Are they 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 ✓



