16146. Iron

REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

Report (if any) on Hull of Vessel. Port Hartlepool No. 36/1

ENGINES.

Description Inverted Compound, surface Condensing,
Made by Messrs J. Richardson & Sons.
When Feby 1876 At Hartlepool.
Diameter of cylinders 30" & 57" (one off each) Length of stroke 33 inches.
No. of revolutions per minute 65.
Point of cut off ½ stroke.
Diameter of screw shaft 9½" & 9"
Diameter of crank shaft journals 9½"
Diameter of screw, ~~or of paddle wheel~~ 14 ft.
Pitch of screw 16 ft.
No. of blades, 4 Total surface 56 sqr. feet.
No. of bilge pumps 2, and sizes 6" diar. x 6" stroke.
Do they pump from each compartment from aft well, each side of engine room and forward hold.

Are all the bilge suction pipes fitted with roses yes.
No. of feed pumps 2. and sizes 3¼" dia. x 23½" stroke. single acting
What gauges are there attached to the engines and boilers ... 1 vacuum gauge & 1 steam gauge in engine room, 1 steam gauge on boiler in stokehole.
Description and size of Donkey Pumps ... 2. inverted, double acting. large one 7½" diar. x 9" stroke. Small one 3½" dia. x 7" stroke.
Where do they pump from ..... large one from tanks and bilges. small one from sea. bilges and hotwell
No. of bilge injections one and sizes 4¾" diar.
Are they connected to air, or circulating pumps to circulating pump.
Is there a hand pump in the engine room yes.
Can it be worked by the main engines no.
Is there a deck hose of sufficient length to reach to any part of the vessel yes.

MAIN BOILERS.

Number one Description Cylindrical & fired at each end.
Made by Messrs J. Richardson & Sons.
When Feby 1876 At Hartlepool
Working pressure 65 lbs per sqr. inch.
Tested by hydraulic pressure to 130 lbs, Date Jany 1876.
Description of super-heating apparatus ..... none.
Can each boiler be worked separately yes (only 1 boiler)

Can the super-heater be shut off and the boilers worked separately —
Description and area of safety valves on each boiler ..... 2 spring 4¾" diar. area = 35·4 sqr. inches.
No. of square feet of fire-grate surface in each boiler 63⅓.
Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin yes (both into 1 cock on ship's side)
Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times..... yes. except bilge rose in forr. hold (when cargo in)

DONKEY BOILER.

Description Upright, with 3 water tubes across flame box.
Where fixed in stokehole.
Working pressure 57 lbs per sqr. inch.

Tested by hydraulic pressure to 120 lbs per sqr. inch (from Mr. E. Withy & Co. Manager, who had the Certificate of it being proved from the makers), Date Augt 16th 75.
Description and area of safety valves { one lever & weight 2⅛" diam. / one loaded direct 2⅛" } area = 7 sqr. ins
No. of square feet of fire grate 12½.

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship yes.
Are they Kingston valves or common cocks ... Common slop valves & cocks.
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ..... yes.
Are the discharge pipes above or below the deep water line below.
Are they each fitted with a discharge valve on the plating of the vessel yes.

What pipes are carried through the bunkers none
How are they protected —
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock new
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge yes. by non return valves.
Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead Tunnel not watertight sluice door fitted

J. Richardson & Sons
Manufacturer. excepting donkey bilge
M. Chas Smith

I was present during the trial trip April 3rd steam 64 lbs. vacuum 28. revol 74. all satisfactory W. A.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel "Kate Fawcett" *owned by* Messrs Fawcett & Greenwell *of the Port of* London *of* 887.17 *Tons Register, and* 140 *Registered Horse Power, and that they have been carefully inspected and examined by me at* Hartlepool *and found to be at this date, viz.,* April 3rd 1876. *in good order and safe working condition.*

Survey fee £3-3-0
Certificate 5-0
£3-8-0
Travelling expenses £1-1-0
Received at Hartlepool by S.P.G.

William Allison
Engineer Surveyor to Lloyd's Register of Shipping.

(10/1/76.)

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