

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

Rec 17/8/76

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Report (if any) on Hull of Vessel. Port Newcastle No. 12290

Description *Compound, inverted, direct acting, surface cond^r*
 Made by *Messrs Palmers Shipbuilding and Iron Co (L^{td})*
 When *July 1876* At *Faversham*
 Diameter of cylinders *one 26" one 51"* Length of stroke *33"*
 No. of revolutions per minute *About*
 Point of cut off *About 3/5^{ths} of stroke*
 Diameter of screw shaft *9 1/2* dia of *summit shaft 9"*
 Diameter of crank shaft journals *9 1/2"*
 Diameter of screw, ~~or of paddle wheel~~ *13" 6"*
 Pitch of screw *15" 0"*
 No. of blades, *4* Total surface
 No. of bilge pumps *2* and sizes *4" dia x 15" stroke. Single Acting*
 Do they pump from each compartment *from all compartments except fore peak*

Are all the bilge suction pipes fitted with roses
 No. of feed pumps *2* and sizes *5" dia x 10" stroke. Single Acting*
 What gauges are there attached to the engines and boilers ... } *2 Steam*
 Description and size of Donkey Pumps ... } *2 Vacuum*
N^o 1 - Pump 8" dia x 12" stroke. Double Acting
N^o 2 - " 4" x 8" " "
N^o 3 - Draws from ballast tanks
 Where do they pump from } *one engine room. N^o 2 draws from fore hold*
after hold, after hold, tunnel & engine room
 No. of bilge injections *1* and sizes *6" dia*
 Are they connected to air, or circulating pumps *Circulating Pump*
 Is there a hand pump in the engine room *Small donkey works by hand*
 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 *Two* Description *Round Multitubular*
 Made by *Messrs Palmers Shipbuilding and Iron Co (L^{td})*
 When *July 1876* At *Faversham*
 Working pressure *45 lbs*
 Tested by hydraulic pressure to *150 lbs*, Date *June 18/76*
 Description of super-heating apparatus } *Annular Superheater*
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately } *No*
 Description and area of safety valves on each boiler } *Adams Spring. Two on each boiler*
3 1/4" dia. Total area 16. 6 sq in
 No. of square feet of fire-grate surface in each boiler } *32.5 sq feet*
65
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin } *Yes*
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times } *Injection pipes in hold not accessible when vessel is loaded*

DONKEY BOILER.

Description *Vertical Water tubes in furnace*
 Where fixed *On deck*
 Working pressure *45 lbs*

Tested by hydraulic pressure to *100 lbs* Date *May 76*
 Description and area of safety valves *Direct Spring 3. 1. 10. 16. 3 sq in*
 No. of square feet of fire grate *7 sq feet*

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 ... } *Stop valves and common 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 } *main & ballast below, bilge above*
 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 } *Now*
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge } *Yes*
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead } *Yes*

FOR *Palmers Shipbuilding & Iron Co L^{td}* Manufacturer.

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 *Stelling* owned by *Messrs Messrs Fenwick & Co* of the Port of *London* of *565.241* Tons Register, and *100* Registered Horse Power, and that they have been carefully inspected and examined by me at *Faversham* and found to be at this date, viz., *August 10th 1876* in good order and safe working condition.

Survey fee *5-0-0*
 Certificate *5-5-0* Received at Shields
 Travelling expenses *1-1-0* by *A. Young* 10/10/76

James Blair
 Engineer Surveyor to Lloyd's Register of Shipping.
 Lloyd's Register Foundation
 IRON 467-0435