

## REPORT ON MACHINERY.

Port of *West Hartlepool*

Received at London Office

SAT. 14 APR 1894

No. in Survey held at *West Hartlepool*Date, first Survey *25<sup>th</sup> Oct 93* Last Survey *5<sup>th</sup> April 1894*

Reg. Book.

(Number of Visits *33*.)

on the

*S. S. "Rannimstry"*Tons *Gross 2845.19*  
*Net 1828.31*Master *Elijah White* Built at *H. H. Pool* By whom built *Turner & Pithy & Co. Ltd.* When built *1894*Engines made at *H. Hartlepool* By whom made *J. Richardson & Sons* when made *1894*Boilers made at *Do* By whom made *Do* when made *1894*Registered Horse Power *250* Owners *Lisewright Bacon & Co* Port belonging to *H. Hartlepool*Nom. Horse Power as per Section 28 *251*

ENGINES, &c.— Description of Engines *Triple Expansion* No. of Cylinders *3*

Diameter of Cylinders *23. 27. 61* Length of Stroke *42* Revolutions per minute *60* Diameter of Screw shaft *as per rule 11.08*  
*as fitted 10.52*

Diameter of Tunnel shaft *as fitted 11 1/4"* Diameter of Crank shaft journals *11 1/4"* Diameter of Crank pin *11 1/4"* Size of Crank webs *7 3/4" x 14"*

Diameter of screw *16.0"* Pitch of screw *16.0"* No. of blades *4* State whether moveable *No* Total surface *70.55 sq*

No. of Feed pumps *2* Diameter of ditto *2 3/4"* Stroke *26"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* Diameter of ditto *2 3/4"* Stroke *26"* Can one be overhauled while the other is at work *yes*

No. of Donkey Engines *2* Sizes of Pumps *3 1/2" x 7" & 8 1/2" x 7"* No. and size of Suctions connected to both Bilge and Donkey pumps  
*In Engine Room Two 3" and two 3 1/2"*

In Holds, &c. *Fore peak one 2 1/2", forward well one 3 1/2", main hold well one 3 1/2", main after hold well one 3 1/2", aft hold well one 3 1/2", after well & peak one 2 1/2"*

No. of bilge injections *1* sizes *6"* Connected to condenser, or to circulating pump *Pump* 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 *At line*

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 *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*

When 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 *3933 sq*

No. and Description of Boilers *2 Cylindrical Single ended* Working Pressure *165* Tested by hydraulic pressure to *330*

Date of test *31.1.94* Can each boiler be worked separately *yes* Area of fire grate in each boiler *45 sq* No. and Description of safety valves to each boiler *2 Spring*

Area of each valve *8.29* Pressure to which they are adjusted *170 lb* Are they fitted with easing gear *yes* Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Mean diameter of boilers *14.9"*

Length *10.1 1/2"* Material of shell plates *Steel* Thickness *1 3/8"* Description of riveting: circum. seams *Lap double* long. seams *R.B. tuble*

Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8 1/4"* Lap of plates or width of butt straps *19 1/2"*

Per centages of strength of longitudinal joint *89* Working pressure of shell by rules *167.7* Size of manhole in shell *16" x 12"*

Size of compensating ring *-* No. and Description of Furnaces in each boiler *3 Morrison* Material *Steel* Outside diameter *3.9 3/4"*

Length of plain part *top 6.0 bottom 6.9* Thickness of plates *crown 5/8" bottom 7/8"* Description of longitudinal joint *beaded* No. of strengthening rings *-*

Working pressure of furnace by the rules *175* Combustion chamber plates: Material *Steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *7/8"*

Pitch of stays to ditto: Sides *8 5/8"* Back *8 3/4"* Top *8 5/8"* If stays are fitted with nuts or riveted heads *Yn to* Working pressure by rules *196*

Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *73 sq* Working pressure by rules *193* End plates in steam space: Material *Steel* Thickness *1 3/8"* Pitch of stays *18 1/4" x 16 1/4"* How are stays secured *R.B.M.* Working pressure by rules *170* Material of stays *Steel*

Diameter at smallest part *2 3/4"* Area supported by each stay *296 sq* Working pressure by rules *180* Material of Front plates at bottom *Steel* Thickness *1 3/8"* Material of Lower back plate *Steel* Thickness *3/8"* Greatest pitch of stays *12 7/16"* Working pressure of plate by rules *165*

Diameter of tubes *2 1/2"* Pitch of tubes *4 3/4"* Material of tube plates *Steel* Thickness: Front *3 1/8"* Back *3/4"* Mean pitch of stays *9 1/2"*

Pitch across wide water spaces *14 1/2"* Working pressures by rules *171* Girders to Chamber tops: Material *Iron* Depth and thickness of girder at centre *7 1/4" x 1 1/4"* Length as per rule *2.4"* Distance apart *8 5/8"* Number and pitch of Stays in each *2 pitch 8 1/4"*

Working pressure by rules *191* 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 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 *-*



**DONKEY BOILER—** Description *Vertical four crop tubes*  
 Made at *Stockton* By whom made *J. Hudson & Co. Ltd.* When made *26.1.94* Where fixed *Stockton*  
 Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *775* Fire grate area *28.5* Description of safety valves *Spring*  
 No. of safety valves *1* Area of each *14.19* Pressure to which they are adjusted *85* If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *No* Diameter of donkey boiler *7.0"* Length *14.0"* Material of shell plates *Steel* Thickness *15/32*  
 Description of riveting long. seams *Lap double* Diameter of rivet holes *13/16"* Whether punched or drilled *Punched* Pitch of rivets *2"*  
 Lap of plating *4 1/4"* Per centage of strength of joint *68.8* Rivets *70.4* Thickness of shell crown plates *9/16"* Radius of do. *5.9"* No. of Stays to do. *7*  
 Dia. of stays *1 3/4"* Diameter of furnace Top *5.8"* Bottom *6.4"* Length of furnace *6.3"* Thickness of furnace plates *2 1/2"* Description of joint *Lap Single* Thickness of furnace crown plates *5/8"* Stayed by *Same as shell* Working pressure of shell by rules *83.8*  
 Working pressure of furnace by rules *80.2* Diameter of uptake *16"* Thickness of uptake plates *9/16"* Thickness of water tubes *3/8"*

**SPARE GEAR.** State the articles supplied:— *Propeller, 2 main bearing bolts & nuts, 2 top end bolts & nuts, 2 bottom end bolts & nuts, 1 set of shaft coupling bolts & nuts, 1 set of feed valves, 1 set of tilge valves, piston bolts 1/2 set of valves for air & circulating pump, nuts, bolts & iron.*

The foregoing is a correct description,

*J. Hudson & Co. Ltd.* Manufacturer.

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery has been specially surveyed during construction the material and workmanship good & renders the vessel eligible in my opinion to have the Record L.M.C. 4.94 in the Register Book of the Society.*

It is submitted that  
this vessel is eligible for  
**THE RECORD** L.M.C. 4.94

*J. Im.*  
*14/4/94*

*Large handwritten signature/initials*

Certificate (if required) to be sent to

The amount of Entry Fee..	£	2:	:	When applied for,
Special .. .. .	£	32:	11:	11.4.18.94.
Donkey Boiler Fee .. .. .	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	12.4.18.94.

Committee's Minute

**TUES. 17 APR 1894**

Assigned

*+ L.M.C. 4.94*

*Richard Ains*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping  
*West Hartlepool*



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Foundation

WB & L (4)