

REPORT ON MACHINERY.

WED. 5 JAN 1898

Port of WEST HARTLEPOOL

Received at London Office

No. in Survey held at **WEST HARTLEPOOL** Date, first Survey **10th Dec, 1896**, Last Survey **4th Jan 1898**
 Reg. Book. **S.S. "Victoria"** (Number of Visits **122**)
 on the **S.S. "Victoria"** Tons Gross **6849** Net **4384**
 Master **Garrington** Built at **WEST HARTLEPOOL** By whom built **Gurney, Kitchy & Co. Ltd.** When built **1894**
 Engines made at **Hartlepool** By whom made **Thos. Richardson & Son, Ltd.** when made **1894**
 Boilers made at **do** By whom made **do** when made **1894**
 Registered Horse Power _____ Owners **Pilson Gurney Lyland & Co. Ltd.** Port belonging to **WEST HARTLEPOOL**
 Nom. Horse Power as per Section 28 **463** Is Electric Light fitted **yes**

ENGINES, &c.—Description of Engines **Triple expansion** No. of Cylinders **3** No. of Cranks **3**
 Diameter of Cylinders **32.54.90** Length of Stroke **66** Revolutions per minute **62** Diameter of Screw shaft **14.079** as per rule **18.25** as fitted
 Diameter of Tunnel shaft **16.22** as per rule **14.25** as fitted Diameter of Crank shaft journals **18.25** Diameter of Crank pin **18.25** Size of Crank webs **12.25 x 2.125**
 Diameter of screw **20.3** Pitch of screw **25.0** No. of blades **4** State whether moveable **yes** Total surface **120**
 No. of Feed pumps **2** Diameter of ditto **9.5** Stroke **26** Can one be overhauled while the other is at work **yes**
 No. of Bilge pumps **2** Diameter of ditto **4.5** Stroke **36** Can one be overhauled while the other is at work **yes**
 No. of Donkey Engines **1** Sizes of Pumps **D6.4.10 P 7** Suctions No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room **1** Bell **4.5** P **3.5** S **3.5** Pulverometer **5** In Holds, &c. **Fore hold one 3.5, two 3.5 in each**
forward well, two 3.5 in each after well & one 2.5 in tunnel well.
 No. of bilge injections **1** sizes **11** Connected to condenser, or to **centrifugal** pump Is a separate donkey suction fitted in Engine room & size **yes 4.5**
 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 **yes**
 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 **Below**
 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 **traverse** Is the screw shaft tunnel watertight **yes**
 Is it fitted with a watertight door **yes** worked from **middle platform & engine room**

BOILERS, &c.— (Letter for record **(A)**) Total Heating Surface of Boilers **121418** Is forced draft fitted **no**
 No. and Description of Boilers **Two double & two single ended** Working Pressure **190 lb** Tested by hydraulic pressure to **380 lb**
 Date of test **23.8.97** Can each boiler be worked separately **yes** Area of fire grate in each boiler **99.0** No. and Description of safety valves to
 each boiler **Two Spring** Area of each valve **14.18** Pressure to which they are adjusted **95 lb** Are they fitted
 with easing gear **yes** Smallest distance between boilers or uptakes and bunkers or woodwork **Ship Side** Mean diameter of boilers **15.3**
 Length **17.6** Material of shell plates **Steel** Thickness **1.5** Description of riveting: circum. seams **Butt, double long. seams** **Butt, triple**
 Diameter of rivet holes in long. seams **1.5** Pitch of rivets **10** Lap of plates or width of butt straps **21.25**
 Per centages of strength of longitudinal joint rivets **89.5** Working pressure of shell by rules **199.5** Size of manhole in shell **16.25**
 plate **85.0** Size of compensating ring **2.6 x 2.6 x 1.5** No. and Description of Furnaces in each boiler **6 Morrison** Material **Steel** Outside diameter **4.0**
 Length of plain part **6.9** Thickness of plates **5.8** Description of longitudinal joint **Welded** No. of strengthening rings **—**
 top **6.9** bottom **6.9** Working pressure of furnace by the rules **210** Combustion chamber plates: Material **Steel** Thickness: Sides **3.5** Back **—** Top **3.5** Bottom **1.5**
 Pitch of stays to ditto: Sides **8.5** Back **—** Top **8.5** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **194**
 Material of stays **Iron** Diameter at smallest part **1.5** Area supported by each stay **94** Working pressure by rules **209** End plates in steam space:
 Material **Steel** Thickness **1.5** Pitch of stays **16.25 x 18** How are stays secured **nuts** Working pressure by rules **240** Material of stays **Iron**
 Diameter at smallest part **3.25** Area supported by each stay **292** Working pressure by rules **212** Material of Front plates at bottom **Steel**
 Thickness **1.5** Material of Lower back plate **—** Thickness **—** Greatest pitch of stays **—** Working pressure of plate by rules **—**
 Diameter of tubes **3.25** Pitch of tubes **4.5** Material of tube plates **Steel** Thickness: Front **1.5** Back **3.5** Mean pitch of stays **9**
 Pitch across wide water spaces **14.25** Working pressures by rules **195** Girders to Chamber tops: Material **Iron** Depth and
 thickness of girder at centre **10 x 2.25** Length as per rule **3.6** Distance apart **8.25** Number and pitch of Stays in each **Four 8.5 pitch**
 Working pressure by rules **190** Superheater or Steam chest; how connected to boiler **haul** 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 **—**

If not, state whether, and when, one will be
Is a Report also sent on the Hull of the Ship?



DONKEY BOILER— Description *Two donkey boiler fitted.*

Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
 No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied: *Two propeller blades, An pump bucket rod & valves, centrifugal pump fan & shaft, piston ring for M.P. & Lube pistons, 30 boiler tubes, 50 condenser tubes, escape valve spring for each engine, 8 safety valve springs, 3 valve spindles, 1 pair of bottom end bushes, 8 valves for keels & 2 for bilge pumps, and*

The foregoing is a correct description, *sent according to the Rules.*
 For THOMAS RICHARDSON & SONS, LIMITED, Manufacturer.
J.M. Morris

Dates of Survey while building { During progress of work in shops - - } Director. { 1896 - Dec 10, 15, 21, 23, 28, 29, 30 } 1897 - Jan 5, 9, 13, 16, 21, 25, 26, 27, 29, 30, Feb 1, 4, 11, 12, 17, 18, 19, 22, 23, 24, 26
 { During erection on board vessel - - } { March 1, 3, 4, 9, 15, 17, 20, 27, 30, 31, April 2, 6, 8, 13, 15, 22, 23, 24, 26, May 4, 5, 8, 11, 12, 13, 18, 20, 21, 22, 25, 26, 27, 28, 31, June 1, 3, 4, 14, 15, 16, 19, 29, July 1, 2, 5, 6, 9, 12, 15, 22, 23, 26, 28, 29, 30, Aug 4, 5, 9, 10, 12, 13, 17, 19, 23, 27, 31, Sept 6, 10, 14, 15, 18, 20, 22, 23, Oct 2, 5, 9, 12, 18, 22, 30, Nov 2, 4, 5, 9, 10, 13, 24, 30, Dec 6, 9, 13, 14, 28, 1898 - Jan 4 }

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery has been specially surveyed during construction the materials and workmanship good & renders the vessel eligible in my opinion to have the Record **L.M.C. 1.98** in the Register Book of the Society.*

The heating surface in two double ended boilers = 4910 sq
 do do two single ended boilers = 4231 sq
 Total 12141 sq

This vessel is to be placed in the Dry Dock of the Wallsend Slipway Co. L^d. at Wallsend, & while the Newcastle Surveyors have been allowed.

The machinery & boiler of this vessel have been constructed under Special Survey. It is submitted that she is eligible to have **L.M.C. 1.98** recorded

J.M. 5/1/98

The amount of Entry Fee £ 3: : When applied for, 4.1.18.98
 Special .. £ 58: : not received
 Donkey Boiler Fee .. £ : : 5/11/98
 Travelling Expenses (if any) £ : :
 COMMITTEE'S CERTIFICATE WRITTEN

Richard Sims
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **FRI. 14 JAN 1898**
 Assigned



Certificate (if required) to be sent to WESLEY HARTLEPOOL

The Surveyors are requested not to write on or below the space for Committee's Minute.