

REPORT ON MACHINERY.

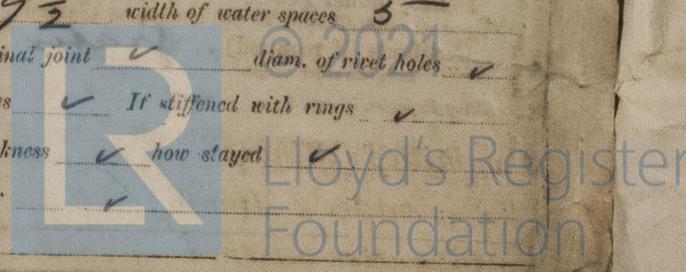
NWC 23137

No. 23134 Port of Newcastle WED 14 AUGUST 1889
 No. in Survey held at Newcastle Received at London Office
 Reg. Book. Date, first Survey 1st Octr 1888 Last Survey 2nd Aug 1889
 on the S.S. Newquay (Number of Visits 37) 2134
 Master F. Sarah Built at Newcastle By whom built C. S. Swan & Hunter Tons 1396
 Engines made at Guthrie By whom made Black Hawthorn Co When built 1889
 Boilers made at do By whom made do when made 1889
 Registered Horse Power 210 Owners J. R. M. Foster when made 1889
 Port belonging to Newcastle

ENGINES, &c.—
 Description of Engines Simple expansion on three cranks
 Diameter of Cylinders 22 36 59 Length of Stroke 39 No. of Rev. per minute 70 Point of Cut-off, High Pressure 1/8 Low Pressure 1/2
 Diameter of Screw shaft 11 Diam. of Tunnel shaft 10 1/2 Diam. of Crank shaft journals 11 Diam. of Crank pin 11 size of Crank webs 7 1/2 x 20 1/2
 Diameter of screw 15.0 Pitch of screw 15.0 No. of blades 4 state whether moveable no total surface 69 1/2
 No. of Feed pumps 2 diameter of ditto 3 Stroke 26 Can one be overhauled while the other is at work Ys
 No. of Bilge pumps 2 diameter of ditto 3 Stroke 26 Can one be overhauled while the other is at work Ys
 Where do they pump from Starboard from bilge (3) well holds, Port from bilge (2) holds & well
 No. of Donkey Engines Two Size of Pumps 8 x 10 & 3 x 5 Where do they pump from Ballast from bilge (1) & all tanks - feed from boiler, hotwell, sea & as port pumps
 Are all the bilge suction pipes fitted with roses Ys Are the roses always accessible Ys Are the sluices on Engine room bulkheads always accessible Ys
 No. of bilge injections one and sizes 2 1/2 Are they connected to condenser, or to circulating pump Circ pump
 How are the pumps worked by levers over condenser from main engine
 Are all connections with the sea direct on the skin of the ship Ys Are they Valves or Cocks both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Ys 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 Ys Are the blow off cocks fitted with a spigot and brass covering plate Ys
 What pipes are carried through the bunkers none How are they protected Ys
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Ys
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Ys
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock new
 Is the screw shaft tunnel watertight Ys and fitted with a sluice door Ys worked from top platform

BOILERS, &c.—
 Number of Boilers Two Description Cyl. Simple ended Whether Steel or Iron Steel
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test June 25th 1889 by 2893
 Description of superheating apparatus or steam chest none
 Can each boiler be worked separately Ys Can the superheater be shut off and the boiler worked separately Ys
 No. of square feet of fire grate surface in each boiler 52.25 sq Description of safety valves spring No. to each boiler two
 Area of each valve 7.07 sq Are they fitted with easing gear Ys No. of safety valves to superheater Ys area of each valve Ys
 Are they fitted with easing gear Ys Smallest distance between boilers and bunkers or woodwork 14 Diameter of boilers 14.0
 Length of boilers 10.0 description of riveting of shell long. seams d & b tubular circum. seams d & c Thickness of shell plates 1 3/2
 Diameter of rivet holes 1 3/2 whether punched or drilled d pitch of rivets 8 Lap of plating 17 3/4
 Percentage of strength of longitudinal joint 84.76 working pressure of shell by rules 160 size of manholes in shell 16 x 12
 Size of compensating rings 1 3/2 No. of Furnaces in each boiler 3
 Outside diameter 39 3/4 length, top same bottom same thickness of plates 1/2 description of joint Ys if rings are fitted Ys
 Greatest length between rings Ys working pressure of furnace by the rules 162 combustion chamber plating, thickness, sides 9/16 back 9/16 top 9/16
 Pitch of stays to ditto, sides 7 3/4 back 7 3/4 top 2 ad If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 162 Diameter of stays at smallest part 1 1/4 working pressure of ditto by rules 163 end plates in steam space, thickness 7/8 & 3/4 diam. plates
 Pitch of stays to ditto 18 x 16 1/2 how stays are secured d u sw working pressure by rules 160 diameter of stays at smallest part 2 3/4
 Greatest pitch of stays 11 working pressure by rules 160 Front plates at bottom, thickness 13/16 Back plates, thickness 13/16
 plates, front 13/16 back 13/16 how stayed tubes pitch of stays 9 1/2 width of water spaces 5
 Diameter of Superheater or Steam chest Ys length Ys thickness of plates Ys description of longitudinal joint Ys diam. of rivet holes Ys
 Pitch of rivets Ys working pressure of shell by rules Ys diameter of flue Ys thickness of plates Ys If stiffened with rings Ys
 Distance between rings Ys working pressure by rules Ys end plates of superheater, or steam chest; thickness Ys how stayed Ys
 Superheater or steam chest; how connected to boiler Ys

Same plate



DONKEY BOILER— Description *Meredith's Patent* when made *7.6.89* where fixed *Strickland*
 Made at *Strickland* by whom made *Riley Bros* fire grate area *19.5* description of safety
 Working pressure *80 lb* tested by hydraulic pressure to *100 lb* No. of Certificate *1843* if steam from main boilers co
 valves *sprung* No. of safety valves *two* area of each *4.90* if fitted with casing gear *25*
 enter the donkey boiler *no* diameter of donkey boiler *6.0* length *13.6* description of riveting *d l*
 Thickness of shell plates *13/32* diameter of rivet holes *13/16* whether punched or drilled *no* pitch of rivets *2 1/16* lap of plating *2 1/2*
 per centage of strength of joint *71* thickness of crown plates *13/32* stayed by *hemispherical*
 Diameter of furnace, top *4.2* bottom *5.2* length of furnace *2.3* thickness of plates *9/16* description of joint *sl*
 Thickness of furnace crown plates *1/2* stayed by *hemispherical* working pressure of shell by rules *86*
 Working pressure of furnace by rules *80* diameter of uptake *✓* thickness of plates *✓* thickness of water tubes *✓*

SPARE GEAR. State the articles supplied:— *2 top end bolts, 2 bottom end bolts, 2 main bearing bolts, 8 coupling bolts, propeller, 2 safety valve springs, set of feed valve pins, valves, bolt nuts, bar plate iron, spare boiler room down take, ordinary engine room outfit.*

The foregoing is a correct description,
 for *Black Hawthorn* Manufacturer of Engines & Main Boilers only
James Wallace

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed under Special Survey, the materials and workmanship are sound and good and eligible, in my opinion to be classed + L. E. 89 in the Society's Register Book.*

Heating surface as per rule 3160 ϕ
 H.P. *213.9*

It is submitted that this vessel is eligible to have + L.M.C. R.P. recorded. J.A. 14.8.89.

The amount of Entry Fee *£2* received by me,
 Special *£30:10*
 Donkey Boiler Fee *£*
 Certificate (if required) *gratis* 21/8/1889
 To be sent as per margin.

John Wallace
 Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Committee's Minute
 + *Emet, 89*
 FRIDAY 23 1889

Reference should be made to any copy of the Committee's Minute to be sent to

