

REPORT ON MACHINERY.

4086 (Nwc)

Received at London Office MONDAY 8 OCT 1883

Survey held at Islehead + W. Htph Date, first Survey April 30 '83 Last Survey Sept 14 '83
 Book. (Number of Visits 11)
 on the screw steamer "Maitlands" Tons 1160
 Master Holman Built at W. Htph By whom built W Gray & Co When built 1883
 Engines made at Islehead By whom made Black Hawthorn & Co when made 1883
 Boilers made at do By whom made do when made do
 Registered Horse Power 99 Owners Hardy Wilson & Co Port belonging to West Htph

ENGINES, &c.—

Description of Engines Compound inverted screw
 Diameter of Cylinders 24-30 Length of Stroke 83 No. of Rev. per minute 65 Point of Cut off, High Pressure 5 Low Pressure 5
 Diameter of Screw shaft 9 Diam. of Tunnel shaft 8 1/2 Diam. of Crank shaft journals 9 Diam. of Crank pin 9 size of Crank webs 6 x 11 1/2
 Diameter of screw 12.10 Pitch of screw 14.6 No. of blades 4 state whether moveable no total surface 40 sq
 No. of Feed pumps two diameter of ditto 3 1/8 Stroke 16 1/2 Can one be overhauled while the other is at work yes
 No. of Bilge pumps two diameter of ditto 3 1/8 Stroke 16 1/2 Can one be overhauled while the other is at work yes
 Where do they pump from bunks bilges + tunnel well
 No. of Donkey Engines two Size of Pumps 7 x 10 + 3 x 5 Where do they pump from tall out pump tanks bilges + well - feed from hotwell + sea
 Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 No. of bilge injections one and sizes 4 1/2 Are they connected to condenser, or to circulating pump circ pump
 How are the pumps worked by live over condenser from aft engine
 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 accessible at all times yes
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection 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 ✓ and fitted with a sluice door yes worked from top platform

BOILERS, &c.—

Number of Boilers one Description cyl single ended Whether Steel or Iron iron
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 16-8-83 No 1380
 Description of superheating apparatus or steam chest horizontal steam dome
 Can each boiler be worked separately ✓ Can the superheater be shut off and the boiler worked separately no
 No. of square feet of fire grate surface in each boiler 321 Description of safety valves spring No. to each boiler two
 Area of each valve 12.56 Are they fitted with easing gear yes No. of safety valves to superheater ✓ area of each valve ✓
 Are they fitted with easing gear ✓ Smallest distance between boilers and bunkers or woodwork 12" Diameter of boilers 14.0
 Length of boilers 10.6 description of riveting of shell long. seams triple lap circum. seams double lap Thickness of shell plates 3/32
 Diameter of rivet holes 1 3/8 whether punched or drilled drilled pitch of rivets 5 3/8 Lap of plating 11"
 Percentage of strength of longitudinal joint 74 working pressure of shell by rules 81 size of manholes in shell 16 x 12
 Size of compensating rings 1 x 6 No. of Furnaces in each boiler three
 Outside diameter 39 length, top 7.0 bottom 9.6 thickness of plates 9/16 - 11/32 description of joint welded if rings are fitted no
 Greatest length between rings 9.6 working pressure of furnace by the rules 80 combustion chamber plating, thickness, sides 1/2 back 1/2 top 1/2
 Pitch of stays to ditto, sides 8 3/4 back 8 3/4 top rad If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 84 Diameter of stays at smallest part 1 3/16 working pressure of ditto by rules 87 end plates in steam space, thickness 3/32
 Pitch of stays to ditto 17 5/8 how stays are secured 4 in two working pressure by rules 80 diameter of stays at smallest part 2 3/8 working pressure by rules 85 Front plates at bottom, thickness 9/16 Back plates, thickness 3/4
 Greatest pitch of stays ✓ working pressure by rules ✓ Diameter of tubes 3 1/2 pitch of tubes 4 3/4 thickness of tube plates, front 3/4 back 3/4 how stayed tubes pitch of stays 14 1/2 width of water spaces 5
 Diameter of Superheater or Steam chest 4.0 length 6.42 thickness of plates 3/8 description of longitudinal joint double lap diam. of rivet holes 5/8
 Pitch of rivets 3 5/8 working pressure of shell by rules 91 diameter of flue ✓ thickness of plates ✓ If stiffened with rings ✓
 Distance between rings ✓ working pressure by rules ✓ end plates of superheater, or steam chest; thickness 1/2 how stayed rad
 of 3. 0 Superheater or steam chest; how connected to boiler Contracted neck

DONKEY BOILER— Description *ordinary vertical*
Made at *W. H. H. H.* by whom made *W. Gray & Co* when made *1883* where fixed *Stockholm*
Working pressure *65* tested by hydraulic pressure to *130* No. of Certificate *974* fire grate area *14.19* descrip.
valves *deadweight* No. of safety valves *two* area of each *3.98* if fitted with easing gear *yes* if steam from main be
enter the donkey boiler *no* diameter of donkey boiler *5.0* length *11.6* description of riveting *double lap*
Thickness of shell plates *3/8* diameter of rivet holes *13/16* whether punched or drilled *yes* pitch of rivets *2 3/4* lap of plating
per centage of strength of joint *70.4* thickness of crown plates *7/16* stayed by *6 stays 1 1/2 diam*
Diameter of furnace, top *3.10* bottom *4.5* length of furnace *5.3* thickness of plates *7/16* description of joint *single*
Thickness of furnace crown plates *7/16* stayed by *same as crown* working pressure of shell by rules *60*
Working pressure of furnace by rules *66* diameter of uptake *14* thickness of plates *5/16* thickness of water tubes *5/16*

SPARE GEAR. State the articles supplied:— *Two main bearing bolts two battons & two*
connecting rod bolts & coupling bolts set feed and bilge pumps valves
set air and circulating pumps valves, set piston springs, pro
6 boiler tubes, 6 condenser tubes, 200 wood ferrules & usual engine
room outfit.

The foregoing is a correct description,
for *Black Hawthorn & Co* Manufacturer. *Main Engine & Boiler*
Jacob Hallan

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 work
ships are sound and good and eligible in my opinion to be class
+ L. M. C. 9.83 in the Locusts Register Book.

This submitted that this
should be eligible to have the
notification & L. M. C. recorded
PM 8/10/83

The amount of Entry Fee .. £ *1* : - : - received by me,
Special £ *14* : *17* : -
Donkey Boiler Fee £ *7* : *2* : -
Certificate (if required) .. £ - : - : - *6.10.1883*
To be sent as per margin.
(Travelling Expenses, if any, £ *2.2.0*)

Committee's Minute

TUESDAY 9 OCT 1883

+ *L. M. C.*

J. W. Waller
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.