

469 *Iron* 758

REPORT ON MACHINERY.

No. 758 Received at London Office 16th April 1888
 No. in Survey held at Hong Kong Date, first Survey 4th April 1887 Last Survey 18 April 1888
 Reg. Book. Yug boat "Farn" (Number of Visits) Tons 276 Gross
 on the Yug boat "Farn" 140 Net
 Master Howloon Built at Howloon By whom built Hongkong & Whampoa Dock When built 1855
 Engines made at Howloon By whom made H. R. & W. Steel & Co. Limited when made 1855
 Boilers made at Howloon Howloon By whom made do " do when made do
 Registered Horse Power 74 nom. Owners H. R. & W. Steel by 2nd Port belonging to Hong Kong

ENGINES, &c.—

Description of Engines Twin screw Compound Surface Condensing
 Diameter of Cylinders 15" & 30" Length of Stroke 18" No. of Rev. per minute 135 Point of Cut off, High Pressure .6 Low Pressure .65
 Diameter of Screw shaft 5 1/2" Diam. of Tunnel shaft 5 1/2" Diam. of Crank shaft journals 5 1/2" Diam. of Crank pin 6" size of Crank webs 4 x 2 1/2"
 Diameter of screw 7'-0" Pitch of screw 9'-6" No. of blades 3 state whether moveable no total surface 17 sq ft
 No. of Feed pumps two diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work yes
 No. of Bilge pumps two diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work yes
 Where do they pump from Fore hold, Stockhole, Engine room & Afterhold
 No. of Donkey Engines One Size of Pumps 2 1/2" suction Where do they pump from Fore hold, Stockhole
Engine room & Afterhold
 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
 of bilge injections two and sizes 3" Are they connected to condenser, or to circulating pump Pump
 How are the pumps worked Levers from A.P. Cylinder crosshead
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves & Cocks
 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 above
 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 Bilge pipe to forehold How are they protected wood covering
 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 2nd April 88.
 Is the screw shaft tunnel watertight no and fitted with a sluice door yes worked from Main or upper deck

BOILERS, &c.—

Number of Boilers two Description Multitubular Whether Steel or Iron Steel
 Working Pressure 110 lbs Tested by hydraulic pressure to 240 lbs Date of test 4th February 88.
 Description of superheating apparatus or steam chest None
 Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately
 No. of square feet of fire grate surface in each boiler 35 sq ft Description of safety valves Springs No. to each boiler two
 Area of each valve 14 sq in 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 10" Diameter of boilers 8'-9"
 Length of boilers 9'-6" description of riveting of shell long. seams Lap & treble circum. riveted seams Lap & double riveted thickness of shell plates 1/4"
 Diameter of rivet holes 1 1/8" whether punched or drilled drilled pitch of rivets 3 1/2" Lap of plating 6 1/2"
 Percentage of strength of longitudinal joint 73.5 working pressure of shell by rules 110 lbs size of manholes in shell 13 1/2" x 10 1/2"
 Size of compensating rings 36" x 34" x 5" No. of Furnaces in each boiler Three
 Outside diameter 2'-3" length, top 6'-6" bottom 6'-9" thickness of plates 1/2" description of joint double butt if rings are fitted no
 Greatest length between rings — working pressure of furnace by the rules 127 combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 7 3/8" back 7 3/8" top 7 1/2" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 110
 Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 160 end plates in steam space, thickness 3/4"
 Pitch of stays to ditto 13 1/2" how stays are secured double nuts & washers working pressure by rules 110 diameter of stays at smallest part 1 1/8"
 working pressure by rules 140 Front plates at bottom, thickness 1/4" Back plates, thickness 1/4"
 Greatest pitch of stays 10" x 8" working pressure by rules 170 Diameter of tubes 3" pitch of tubes 3 3/8" thickness of tube plates, front 1/4" back 3/8" how stayed Tubes pitch of stays 11 3/8" width of water spaces 5 3/4"
 Diameter of Superheater or Steam chest — length — thickness of plates — description of longitudinal joint — diam. of rivet holes —
 Pitch of rivets — working pressure of shell by rules — 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 — how stayed —
 Superheater or steam chest; how connected to boiler —

469 Iron

DONKEY BOILER— Description None

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 _____ if fitted with easing gear _____ if steam from main boilers can enter the donkey boiler _____

diameter of donkey boiler _____ length _____ description of riveting _____

Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____

per centage of strength of joint _____ thickness of crown plates _____ stayed by _____

Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of 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 plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
J. Hillier Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boilers of this vessel were surveyed by me while under construction and when being fitted on board with a view to obtaining the class in the Society ~~L.M.C.~~ L.M.C.

The materials and workmanship are of good description.

Had a trial of the Engines and Boilers under steam and found very satisfactory. The Engines working with without heating and the Boilers being tight and sound in all parts. and now consider the Engines and Boilers to be in a good efficient and safe working condition.

Lowell

It is submitted that this vessel is eligible to have ~~L.M.C.~~ L.M.C. 4.88 recorded
 W.A.
 4-2-89.

The amount of Entry Fee .. £ 1 : - : received by me,
 Special .. £ *Suley 21-2-6* } \$ 4⁵⁰
 Donkey Boiler Fee .. £ - : - :
 Certificate (if required) .. £ - : 2 : 6 26/12/88
 To be sent as per margin.
 (Travelling Expenses, if any, £)

Andrew Johnson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
 + dmlb 4/88
 TUES 6 FEB 1889 TUES 30 APRIL 1889

