

REPORT ON MACHINERY.

No. 4588 Received at London Office 27/8/86
 No. in Survey held at Glasgow & Dumbarton Date, first Survey 25th Decr 1885 Last Survey 21 August 1886
 Reg. Book. Shed (Number of Vistas 48) 1363.40
 on the Screw Steamer "Inland" Tons 869.43
 Master Built at Dumbarton By whom built A. McMillan & Son When built 1886
 Engines made at Glasgow By whom made Hutton & Corbett when made 1886
 Boilers made at " By whom made " when made 1886
 Registered Horse Power 114 Owners Donald Currie & Co Port belonging to London

ENGINES, &c.—

Description of Engines Triple Expansion (Three Cranks)
 Diameter of Cylinders 18" 30" 48" Length of Stroke 36" No. of Rev. per minute 70 Point of Cut off, High Pressure .68 Low Pressure .5
 Diameter of Screw shaft 9 1/4" Diam. of Tunnel shaft 8 3/4" Diam. of Crank shaft journals 9 1/4" Diam. of Crank pin 9 1/4" size of Crank webs 6 1/4" x 10 3/4"
 Diameter of screw 12 1/2" Pitch of screw 10" 6" mean No. of blades four state whether moveable yes total surface 44 ft²
 No. of Feed pumps Two diameter of ditto 2 3/4" Stroke 20" Can one be overhauled while the other is at work yes
 No. of Bilge pumps Two diameter of ditto 2 3/4" Stroke 20" Can one be overhauled while the other is at work yes
 Where do they pump from All Compartments
 No. of Donkey Engines Two Size of Pumps one 4" x 8" x 8" one 8" x 4" x 10" Where do they pump from Sea Bilge & Ballast Tanks

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 3 1/2" Are they connected to condenser, or to circulating pump to Circulating
 How are the pumps worked by levers

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 near to lead 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 Bilge pipes to find hold How are they protected by wood casing
 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 On Slip previous to being launched
 Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from Upper platform

BOILERS, &c.—

Number of Boilers One Description Round Horizontal Whether Steel or Iron Steel
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 12th June 1886
 Description of superheating apparatus or steam chest none
 Can each boiler be worked separately — Can the superheater be shut off and the boiler worked separately —
 No. of square feet of fire grate surface in each boiler 60 ft² Description of safety valves Direct Spring No. to each boiler Two
 Area of each valve 4" 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 18" Diameter of boilers 12' 5"
 Length of boilers 15 ft description of riveting of shell long. seams Double butt circum. seams Double riveted Thickness of shell plates 1 1/8"
 Diameter of rivet holes 1 1/4" whether punched or drilled Drilled pitch of rivets 4" + 3 1/2" Lap of plating Straps 19 1/2"
 Per centage of strength of longitudinal joint 82% working pressure of shell by rules 160 lbs size of manholes in shell 16" x 12"
 Size of compensating rings Doubling piece No. of Furnaces in each boiler Four
 Outside diameter 3' 7" length, top 16 ft bottom — thickness of plates 9/16" description of joint Corrupted if rings are fitted —
 Greatest length between rings — working pressure of furnace by the rules 162 lbs combustion chamber plating, thickness, sides 9/16" back — top 9/16"
 Pitch of stays to ditto, sides 4" x 4" back — top 4" x 4" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 160 lbs Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 189 lbs end plates in steam space, thickness 1 1/4"
 Pitch of stays to ditto 14 1/4" x 14 1/4" how stays are secured by double nuts working pressure by rules 160 lbs diameter of stays at smallest part 2.41 Solid working pressure by rules 142 lbs Front plates at bottom, thickness 1 3/16" Back plates, thickness —
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 3/4" x 4 1/8" thickness of tube plates, front 1 1/4" back 1 3/16" how stayed by tubes pitch of stays 9 1/2" x 9 1/2" width of water spaces 6"
 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 —

DONKEY BOILER— Description *Vertical (Cestus patent) Steel*

Made at *Gateshead* by whom made *Clark Chapman & Partners* when made *1886* where fixed *In Stockhold*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *21214* Date of Test *22/6/86* fire grate area *10 ft* description of safety

valves *Direct Spring* No. of safety valves *one* area of each *4"* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *No* diameter of donkey boiler *4' 9"* length *11'* description of riveting *Double lap*

Thickness of shell plates *9/16"* diameter of rivet holes *3/4"* whether punched or drilled *unpunched* pitch of rivets *2 3/4"* lap of plating *3 3/8"*

per centage of strength of joint *42* thickness of crown plates *9/16"* stayed by *uptake + 4 stays*

Diameter of furnace, top *2' 6"* bottom *4 1/2'* length of furnace *—* thickness of plates *9/16"* description of joint *Single lap*

Thickness of furnace crown plates *9/16"* stayed by *as above* working pressure of shell by rules *94 lbs*

Working pressure of furnace by rules *80 lbs* diameter of uptake *3' 9"* thickness of plates *1/16"* thickness of water tubes *9/16"*

SPARE GEAR. State the articles supplied:— *2 Piston rod bolts & nuts, 2 Connecting rod bolts & nuts, One set Coupling bolts, 2 Main bearing bolts & nuts, 1 Boiler tubes & condenser tubes, 1 Feed + 1 Bilge pump valve, 1 Donkey pump valve, Assortment of bolts, nuts & iron of various sizes, 2 Propeller blades*

The foregoing is a correct description,

J. P. Wilson Manufacturer.
Wm. Wilson

General Remarks (State quality of workmanship, opinions as to class, &c.) *These Engines & Boilers are of good workmanship & materials and are now in good order and safe working condition and eligible in my opinion to be noted in the Register Book* Lloyd's M. C. 8/86

The amount of Entry Fee .. £ *2* : : received by me, *(Signature)*

Special .. £ *14* : *11* : : *(Signature)*

Donkey Boiler Fee .. £ : : : *(Signature)*

Certificate (if required) .. £ : : : *24/8/1886*

To be sent as per margin.

(Travelling Expenses, if any, £ - *8/-*)

Committee's Minute

FRIDAY 27 AUGUST 1886

(Signature)

James Morrison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Clyde District

Lloyd's Register
 Foundation