

REPORT ON MACHINERY

No. 77268

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No. in Reg. Book

Preston

Date, first Survey 19th April Last Survey 19th October 1880

on the *Steam S.S. "Bebington"*

Tons 139.90

Master *not appointed*

Built at

Preston

When built

1880

Engines made at

Preston

By whom made *N. Allsup & Sons* when made 1880

Boilers made at

- do -

By whom made - do - when made 1880

Registered Horse Power

98

Owners

Birkenhead Corporation

Port belonging to

Liverpool

ENGINES, &c.—

Description of Engines *2 Pairs of Compound Mtd. D. Acting Surface Condensing*
 Diameter of Cylinders *19" & 34"* Length of Stroke *24"* No. of Rev. per minute *90* Point of Cut off, High Pressure *3/4* Low Pressure *1/2*
 Diameter of Screw shaft *6 1/2* Diameter of Tunnel shaft *6* Diameter of Crank shaft journals *7* Diameter of Crank pin *7* size of Crank webs *4 1/2" x 9 1/2"*
 Diameter of screw *7.4* Pitch of screw *14.6* No. of blades *4* state whether moveable *No* total surface *15.6* in each propeller
 No. of Feed pumps *1 to each pair of engines* diameter of ditto *2 3/4"* Stroke *12"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *1 to each pair of engines* diameter of ditto *2 3/4"* Stroke *12"* Can one be overhauled while the other is at work *Yes*
 Where do they pump from *Each compartment*
 No. of Donkey Engines *1 - 8" steam off* Size of Pumps *4" D.A.* Where do they pump from *Each compartment & sea to boiler deck and overboard*

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 *2 dia* Are they connected to condenser, or to circulating pump *Circulating pump*
 How are the pumps worked *Lever and links*
 Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Cocks and chests*
 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 *Not any* 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 *At this time*
 Is the screw shaft tunnel watertight *No tunnel* and fitted with a sluice door *worked from*

BOILERS, &c.—

Number of Boilers *One* Description *Cyl. Ret. Subl. fired from both ends*
 Working Pressure *70 lbs* Tested by hydraulic pressure to *140* Date of test *31st August 1880*
 Description of superheating apparatus or steam chest *Cyl. horizontal steam chest*
 Can each boiler be worked separately *One* Can the superheater be shut off and the boiler worked separately *No*
 Area of square feet of fire grate surface in each boiler *56.8* Description of safety valves *Spring loaded*
 Area of each boiler *Two* area of each valve *15.9"* Are they fitted with casing gear *Yes*
 Area of safety valves to superheater *—* area of each valve *—* are they fitted with casing gear *Yes*
 Least distance between boilers and bunkers *on woodwork* *19 inches*
 Thickness of boiler plates *3/4"* Length of boilers *16' 0"* description of riveting of shell long. seams *1 1/2" Batt 1 1/2" D.R.* circum. seams *D. R. laid laps*
 Thickness of shell plates *3/4"* diameter of rivet holes *3/8"* whether punched or drilled *punched* pitch of rivets *3 1/2"*
 Thickness of plating *10 1/4"* per centage of strength of longitudinal joint *75* working pressure of shell by rules *81 lbs.*
 Size of manholes in shell *16" x 12"* size of compensating rings *6" x 7 1/2"*
 No. of Furnaces in each boiler *4* outside diameter *3' 0 1/2"* length, top *6' 0"* bottom *—*
 Thickness of plates *7/16"* description of joint *Laps* if rings are fitted *No* greatest length between rings *—*
 Working pressure of furnace by the rules *81 lbs.*
 Combustion chamber plating, thickness, sides *7/16"* back *1/2"* top *7/16"*
 Pitch of stays to ditto *8" x 8"* sides *8" x 8"* back *—* top *8" x 8"*
 If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *84 lbs.*
 Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *115 lbs.*
 End plates in steam space, thickness *5/8"* pitch of stays to ditto *16" x 15 1/2"* how stays are secured *2 1/2" Nut & R. Head*
 Working pressure by rules *62 lbs.* diameter of stays at smallest part *2 1/2"* working pressure by rules *85 lbs.*
 Front plates at bottom, thickness *1/2"* Back plates, thickness *—* greatest pitch of stays *—* working pressure by rules *—*

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Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{3}{4}$ " thickness of tube plates, front $\frac{9}{16}$ " back $\frac{9}{16}$ "
How stayed stay tubes pitch of stays $13\frac{1}{4}$ " X $9\frac{1}{2}$ " width of water spaces $1\frac{1}{4}$ "
Diameter of Superheater or Steam chest 3.9 length 8.0
Thickness of plates $\frac{3}{8}$ " description of longitudinal joint lap double diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $2\frac{3}{4}$ "
Working pressure of shell by rules 93 lbs. 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 $\frac{7}{16}$ " How stayed are $2\frac{1}{4}$ " stay
Superheater or steam chest; how connected to boiler By pipe 1.0" dia $\frac{3}{4}$ " thick
DONKEY BOILER— Description the donkey boiler
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 casing 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

The foregoing is a correct description,
Wm. A. Simpson Manufacturer

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery and boiler of this vessel have been constructed under Special Survey, the workmanship is of good quality, The machinery and boiler have been tested under steam and found to work well, and are now in good order and safe working condition and under this vessel eligible, in our opinion, to have the notification ✠ Lloyd's M.C. 11.80. recorded in the Register Book

*Has submitted that this vessel is eligible to have the notification in the Register Book
M 13/11/80*

The amount of Entry Fee £ 2 : 0 : 0 received by me, 2 F.L.
Special £ 14 : 14 : 0
Certificate (if required) £ : : 12/11 1880
To be sent as per margin.
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