

REPORT ON MACHINERY.

29378

No. 29378

Received at London Office THURSDAY 29 MARCH 1884

No. in Survey held at
Reg. Book.

Liverpool
S. S. "Severn"

Date, first Survey 2^d June 83. Last Survey 1st Feb 84 1884

(Number of Visits 30) 294.15
Tons 233.25

on the
Master Hughes Built at Liverpool By whom built the Liverpool Forge Co. When built 1883-4
Engines made at Liverpool By whom made J. Jones & Sons when made 1883-4
Boilers made at Liverpool By whom made J. Jones & Sons when made 1883-4
Registered Horse Power 60 Owners Arthur Cook Port belonging to Liverpool

ENGINES, &c.—

Description of Engines Compound Inverted S A Spec Condensing
Diameter of Cylinders 1 of 18" 1 of 36" Length of Stroke 30" No. of Rev. per minute 90 Point of Cut off, High Pressure .5 Low Pressure .6
Diameter of Screw shaft 6 1/2" Diam. of Tunnel shaft 6 1/2" Diam. of Crank shaft journals 6 1/2" Diam. of Crank pin 6 1/2" size of Crank webs 8 1/4" x 5"
Diameter of screw 9 1/2" 6" Pitch of screw 12 1/2" 6" No. of blades 4 state whether moveable No total surface 24 ft
No. of Feed pumps 1 diameter of ditto 3 1/2" Stroke 14" Can one be overhauled while the other is at work
No. of Bilge pumps 1 diameter of ditto 3 1/2" Stroke 14" Can one be overhauled while the other is at work
Where do they pump from Each compartment and Ballast tanks
No. of Donkey Engines One Size of Pumps 4" S A Where do they pump from Each compartment and Ballast tanks, also from sea & hot well to Boiler &c 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 1 and sizes 1 1/2" Are they connected to condenser, or to circulating pump Circulating
How are the pumps worked Levers connected to forward engine
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 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 Engines fitted close to aft bulk

OILERS, &c.—

Number of Boilers 1 Description Cylindrical Ribbed Whether Iron Iron
Working Pressure 75 Tested by hydraulic pressure to 150. Date of test 29th October 1883.
Description of superheating apparatus or steam chest Horizontal long ended. Cylindrical
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 35 3/4 Description of safety valves Spring No. to each boiler 2
Area of each valve 9.6" 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 11.6"
Length of boilers 9.4" description of riveting of shell long. seams D. B. S. D. R circum. seams D. R. laps Thickness of shell plates 3/4
Diameter of rivet holes 7/8 whether punched or drilled drilled pitch of rivets 3 5/8" Lap of plating 10 3/4" 9 5/4"
Percentage of strength of longitudinal joint 72 1/2 working pressure of shell by rules 74.3 size of manholes in shell 16" x 12"
Size of compensating rings 4" x 5/8" No. of Furnaces in each boiler 2
Outside diameter 3.4" length, top 6.6" bottom 6.6" thickness of plates 1/2" description of joint D. B. S. if rings are fitted No
Greatest length between rings working pressure of furnace by the rules 86 combustion chamber plating, thickness, sides 7/16 back 7/16 top 7/16
Pitch of stays to ditto, sides 8" back 8 1/16" top 8 1/16" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 80 Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 97 end plates in steam space, thickness 3/4"
Pitch of stays to ditto 17 1/2" how stays are secured D. B. S. & R. working pressure by rules 111 diameter of stays at smallest part 2 1/4" working pressure by rules 115 Front plates at bottom, thickness 1/16" Back plates, thickness 1/16"
Greatest pitch of stays 8 1/2" working pressure by rules Diameter of tubes 3 1/4" pitch of tubes 4 5/8" thickness of tube plates, front 1/8" back 5/8" how stayed 1 Stay pitch of stays 13 7/8" width of water spaces 1 1/2"
Diameter of Superheater or Steam chest 3.0" length 6.0" thickness of plates 7/16 description of longitudinal joint D. R. lap diam. of rivet holes 3/4"
Pitch of rivets 2 1/2" working pressure of shell by rules 129 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 horizontal
Superheater or steam chest; how connected to boiler Multitube in boiler

DONKEY BOILER— Description *Cylindrical Return tubular*
Made at *Liverpool* by whom made *J Jones & Sons* when made *1883* where fixed *Under bridge*
Working pressure *75* tested by hydraulic pressure to *150* No. of Certificate *392* fire grate area *12 ft* description of safety
valves *Spring* No. of safety valves *1* area of each *5.9* if fitted with easing gear *Yes* if steam from main boilers can
enter the donkey boiler *No* diameter of donkey boiler *6' 0"* length *6' 6"* description of riveting *J. B. S. D. R. d.*
Thickness of shell plates *7/16* diameter of rivet holes *3/4* whether punched or drilled *drilled* pitch of rivets *2 1/2* lap of plating *9*
per centage of strength of joint *70%* thickness of crown plates *—* stayed by *—*
Diameter of furnace, top *3' 0"* bottom *—* length of furnace *4' 6"* thickness of plates *7/16* description of joint *welded*
Thickness of furnace crown plates *7/16* stayed by *—* working pressure of shell by rules
Working pressure of furnace by rules *97* diameter of uptake *—* thickness of plates *—* thickness of water tubes *—*

SPARE GEAR. State the articles supplied:— *As incorporated in the requirements of the Rules.*

John Jones & Sons.

The foregoing is a correct description,

Manufacturer.

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

The material and

workmanship is of good quality. constructed under special survey in accordance with the requirements of the Rules and to plans approved. Inspected and Boilers tested under steam and found to work satisfactorily.

*I am of opinion that this vessel is entitled to the notification *Lloyd's M. C.* and to be marked from this date *2nd March 1884**

It is submitted that this vessel is eligible to have the notification + stamp 2. 84 recorded

D. J.

no 3/84

The amount of Entry Fee £ *1 0 0* received by me,
Special .. £ *9 0 0*
Donkey Boiler Fee .. £ *—*
Certificate (if required) .. £ *—*
To be sent as per margin.

(Travelling Expenses, if any, £

Committee's Minute

Liverpool March 18th 1884.

L. M. C. (Recd) 2-84.

J. G. Kingham
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register
Foundation