

REPORT ON MACHINERY.

No. 130

No. in Survey held at
Reg. Book.

Leith

Date, first Survey 26th April Last Survey 2nd October 1881

on the I.S.S. "Annie. Hope"

Tons 69.26

Master Cunningham

Built at Leith

When built October 1881

Engines made at Leith

By whom made Hawthornes when made 1881

Boilers made at do

By whom made do when made do

Registered Horse Power 15

Owners Hope & Co

Port belonging to Leith

ENGINES, &c.—

Description of Engines Direct acting Compound Int. Cyl. Surface Condensing
Diameter of Cylinders 11" x 20" Length of Stroke 15" No. of Rev. per minute 100 Point of Cut off, High Pressure $\frac{1}{2}$ Low Pressure $\frac{1}{2}$
Diameter of Screw shaft 4" Diameter of Tunnel shaft 3 $\frac{7}{8}$ " Diameter of Crank shaft journals 3 $\frac{7}{8}$ " Diameter of Crank pin 3 $\frac{7}{8}$ " size of Crank webs 3x5 $\frac{1}{2}$ "
Diameter of screw 8" 8" Pitch of screw 8.75 feet No. of blades 3 state whether moveable Sol total surface 11.7 feet
No. of Feed pumps one diameter of ditto 1 $\frac{3}{4}$ " Stroke 8" Can one be overhauled while the other is at work ☒
No. of Bilge pumps one diameter of ditto 1 $\frac{3}{4}$ " Stroke 8" Can one be overhauled while the other is at work ☒
Where do they pump from Holds Tank and engine room
No. of Donkey Engines one Size of Pumps 3 $\frac{7}{8}$ " x 4" x 1 $\frac{1}{2}$ " Where do they pump from Holds from and
to Tank - to Boiler overboard & on Deck.
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 $\frac{1}{2}$ " Are they connected to condenser, or to circulating pump Circulating
How are the pumps worked by levers from I.P. piston crosshead
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks 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 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 before launch 7.9.81
Is the screw shaft tunnel watertight none and fitted with a sluice door ☒ worked from ☒

BOILERS, &c.—

Number of Boilers one Description Circular Tubular
Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 7 September 1881
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 11 feet Description of safety valves Direct-Spring load
No. to each boiler one area of each valve 7 $\frac{1}{2}$ " 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 7" 4" Length of boilers 6.6 description of riveting of shell long. seams Lap & double R circum. seams Lap S.R.
Thickness of shell plates $\frac{1}{4}$ " diameter of rivet holes $\frac{7}{8}$ " whether punched or drilled both pitch of rivets 3 $\frac{1}{2}$ "
Lap of plating 7" per centage of strength of longitudinal joint 75-70.2% working pressure of shell by rules 97 lbs
Size of manholes in shell 12" x 15" size of compensating rings 4 $\frac{1}{2}$ " x $\frac{1}{4}$ "
No. of Furnaces in each boiler two outside diameter 21 $\frac{3}{4}$ " length, top 4' 6" bottom 6' 0"
Thickness of plates 3 $\frac{7}{8}$ " description of joint Lap S.R. if rings are fitted none greatest length between rings ☒
Working pressure of furnace by the rules Top 129 lbs bottom 96 lbs
Combustion chamber plating, thickness, sides $\frac{1}{2}$ " back $\frac{1}{2}$ " top $\frac{1}{2}$ "
Pitch of stays to ditto sides 9" x 7" back 9" x 9" top 8 $\frac{1}{2}$ " x 9"
If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 95 lbs
Diameter of stays at smallest part 1 $\frac{3}{8}$ " B.T. working pressure of ditto by rules 5207 lbs
End plates in steam space, thickness $\frac{1}{4}$ " pitch of stays to ditto 16" x 11" how stays are secured this end shut
Working pressure by rules 97 lbs diameter of stays at smallest part 2" working pressure by rules 5109 lbs
Front plates at bottom, thickness $\frac{1}{4}$ " Back plates, thickness $\frac{1}{4}$ " greatest pitch of stays 12 $\frac{1}{2}$ " x 9" working pressure by rules 5109 lbs

Diameter of tubes $3''$ pitch of tubes $4\frac{1}{2}''$ thickness of tube plates, front $4\frac{1}{2}''$ back $5\frac{1}{8}''$
 How stayed *Tubes & nuts* pitch of stays $12\frac{3}{8} \times 8\frac{1}{2}''$ width of water spaces $1\frac{1}{8}''$
 Diameter of Superheater or Steam chest \leftarrow length \leftarrow
 Thickness of plates \leftarrow description of longitudinal joint \leftarrow diameter of rivet holes \leftarrow pitch of rivets \leftarrow
 Working pressure of shell by rules \leftarrow Diameter of flue \leftarrow thickness of plates \leftarrow
 If stiffened with rings \leftarrow distance between rings \leftarrow Working pressure by rules \leftarrow
 End plates of superheater, or steam chest; thickness \leftarrow How stayed \leftarrow
 Superheater or steam chest; how connected to boiler \leftarrow *Under stays 177 lbs*

DONKEY BOILER—

Description
 Made at \leftarrow By whom made \leftarrow when made \leftarrow
 Where fixed \leftarrow working pressure \leftarrow Tested by hydraulic pressure to \leftarrow No. of Certificate \leftarrow
 Fire grate area \leftarrow Description of safety valves \leftarrow No. of safety valves \leftarrow area of each \leftarrow
 If fitted with easing gear \leftarrow If steam from main boilers can enter the donkey boiler \leftarrow
 Diameter of donkey boiler \leftarrow length \leftarrow description of riveting \leftarrow
 thickness of shell plates \leftarrow diameter of rivet holes \leftarrow whether punched or drilled \leftarrow
 pitch of rivets \leftarrow lap of plating \leftarrow percentage of strength of joint \leftarrow
 thickness of crown plates \leftarrow stayed by \leftarrow
 Diameter of furnace, top \leftarrow bottom \leftarrow length of furnace \leftarrow
 thickness of plates \leftarrow description of joint \leftarrow
 thickness of furnace crown plates \leftarrow stayed by \leftarrow
 Working pressure of shell by rules \leftarrow working pressure of furnace by rules \leftarrow
 diameter of uptake \leftarrow thickness of plates \leftarrow thickness of water tubes \leftarrow

The foregoing is a correct description,

Hawthorn & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The boiler and Machinery of this vessel have been built in accordance with the requirements of the Rules, and to plan of boiler submitted for Committee's approval dated 28/4/81. The safety valve has been tested by steam and set to a working pressure of 90 lb per square inch, and the machinery seen as working and all found satisfactory. The material and workmanship are of the best description and in my opinion eligible to receive the distinctive mark + Lloyd's M.C. insured 10.81*

It is submitted that this vessel is eligible to have the notification of Lloyd's M.C. recorded J.M. 3/11/81.

The amount of Entry Fee £ 1 : - : - received by me,
 Special £ 8 : 0 : 0.
 Certificate (if required) .. £ : 2 : 6 3rd Oct 1881.
 To be sent as per margin.
 (Travelling Expenses, if any, £3-17-6)

Committee's Minute

Friday, November, 4th 1881.

+ Lloyd's M.C.

John Sturrock
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Dundee District

Lloyd's Register
 Foundation