

REPORT ON MACHINERY.

26433

No. _____

(Received in London Office 19-2 1880)

No. in Survey held at London

Date, first Survey Feb. 5th Last Survey Feb. 17th 1880

Reg. Book.

7 on the "Cynthia" New Louis

Tons 366
572

Master _____

Built at Port Glasgow

When built 1872

Engines made at Glasgow

By whom made Walker & Hudson when made 1872

Boilers made at Glasgow

By whom made Walker & Hudson when made 1872

Registered Horse Power 90

Owners _____

Port belonging to Liverpool

ENGINES, &c.—

Description of Engines Compound Inverted

Diameter of Cylinders 24" and 42" Length of Stroke 30 No. of Rev. per minute 58 Point of Cut off, High Pressure _____ Low Pressure _____

Diameter of Screw shaft 7 3/4 Diameter of Tunnel shaft _____ Diameter of Crank shaft journals 8 1/8 Diameter of Crank pin 8 size of Crank webs _____

Diameter of screw 14 ft. Pitch of screw 15 ft. No. of blades 4 state whether moveable yes total surface _____

No. of Feed pumps 2 diameter of ditto 3 1/2 Stroke 15 Can one be overhauled while the other is at work no

No. of Bilge pumps 2 diameter of ditto 3 1/2 Stroke 15 Can one be overhauled while the other is at work no

Where do they pump from Engin Room & Ballast Tank

No. of Donkey Engines 2 Size of Pumps 6" Where do they pump from Engin Room and Ballast Tank

Are all the bilge suction pipes fitted with roses yes. Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____

No. of bilge injections none and sizes _____ Are they connected to condenser, or to circulating pump _____

How are the pumps worked From cross head of Air & Circulating Pump

Are all connections with the sea direct on the skin of the ship yes. Are they Valves or Cocks Valves and Cocks.

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates no Are the discharge pipes above or below the deep water line below

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 _____

What pipes are carried through the bunkers Wash Deck from Donkey How are they protected not protected.

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times _____

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 February 1880

Is the screw shaft tunnel watertight _____ and fitted with a sluice door yes. worked from Engin Room platform

BOILERS, &c.—

Number of Boilers One Description Tubular

Working Pressure 55 lbs. Tested by hydraulic pressure to 90 lbs. Date of test August 1879

Description of superheating apparatus or steam chest plain dome, no superheater

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 _____ Description of safety valves Lever

No. to each boiler 2 area of each valve _____ Are they fitted with casing gear yes.

No. of safety valves to superheater _____ area of each valve _____ are they fitted with casing gear _____

Smallest distance between boilers and bunkers or woodwork 4 in.

Diameter of boilers 12 ft. Length of boilers 9' 6" description of riveting of shell long. seams double lap circum. seams double lap

Thickness of shell plates 3/4 diameter of rivet holes 3/4 whether punched or drilled _____ pitch of rivets 3"

Lap of plating 6" per centage of strength of longitudinal joint _____ working pressure of shell by rules _____

Size of manholes in shell _____ size of compensating rings _____

No. of Furnaces in each boiler 3 outside diameter 3' 4" & 3' 1" length, top 6' 3" bottom _____

Thickness of plates 1/2 description of joint single riveted if rings are fitted _____ greatest length between rings _____

Working pressure of furnace by the rules _____

Combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"

Pitch of stays to ditto 11" x 9" sides _____ back _____ top _____

If stays are fitted with nuts or riveted heads riveted heads. working pressure of plating by rules _____

Diameter of stays at smallest part 1 1/2" working pressure of ditto by rules _____

End plates in steam space, thickness 7/8" pitch of stays to ditto 13 1/2" how stays are secured nuts

Working pressure by rules _____ diameter of stays at smallest part 1 1/2" working pressure by rules _____

Front plates at bottom, thickness 3/4 Back plates, thickness 3/4 greatest pitch of stays 13 1/2" working pressure by rules _____

Diameter of tubes 3 pitch of tubes 4 3/4 thickness of tube plates, front 3/4 (Iron 26423) back 3/4
 How stayed Bolt & nut pitch of stays 10 x 14 width of water spaces 1 1/2
 Diameter of Superheater or Steam chest 3.6 length high 6ft.
 Thickness of plates 1/2 description of longitudinal joint Lap (single) diameter of rivet holes 3/4 pitch of rivets 2 1/4
 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 cross tubes
 Made at London. By whom made Mc Gowan when made September 1879.
 Where fixed On deck working pressure 50lbs. Tested by hydraulic pressure to 120lbs. No. of Certificate
 Fire grate area Description of safety valves Spring lever. 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 4 feet length 9.6 description of riveting single lap.
 thickness of shell plates 3/8 diameter of rivet holes 3/4 whether punched or drilled punched
 pitch of rivets 2 lap of plating 3 per centage of strength of joint
 thickness of crown plates stayed by
 Diameter of furnace, top bottom 3. length of furnace
 thickness of plates 3/8 description of joint single lap
 thickness of furnace crown plates 1/2 stayed by
 Working pressure of shell by rules working pressure of furnace by rules
 diameter of uptake 9 thickness of plates 1/2 thickness of water tubes 1/2

The foregoing is a correct description,
 Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. Examined High & Low Pressure Cylinders, Slides, Air & Circulating pumps, which was found to be in good condition. All crank shaft & tunnel bearings in good condition. Propeller disconnected & stern bush lined up. All sea cocks & connections examined & found in good order. Safety valves & Stop valves examined, in good condition. Boiler examined, recommended a new plate to be fitted in combustion chamber. This plate has been renewed & new stays put in. The Boiler tested by hydraulic pressure to 98 lbs which proved satisfactory. Recommended pressure gauge to be fitted in stoke hold which has been done. The Engine and Boiler are now in good order and safe working condition and render the vessel in my opinion eligible to have the notification B & M. S. recorded in the Register Book, provided the Boiler is subjected to a survey, twelve months from this date.

The amount of Entry Fee .. £ 2 : - : - received by me.
 Special .. £ 5 : 5 : 0
 Certificate (if required) .. £ : 2 : 6
 To be sent as per margin.
 (Travelling Expenses, if any, £)

Geo. E. Wilkinson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Tuesday, April, 27th 1880.

It is submitted that this vessel is eligible to have the notification B & M. S. recorded in the Register Book subject to the vessel being surveyed in 12 months from date of last survey.

