REPORT ON MACHINERY. 48880*

Port of

No. Received at London Office 18

No. in Reg. Book. Survey held at London Date, first Survey Nov: 19th/87 Last Survey Dec: 17th 1888 (Number of Visits 14)

on the S. S. Countess of Lathom Tons

Master Built at Millwall By whom built Stewart & Lathom When built 1888

Engines made at E. Greenwich By whom made Appleby Bros. when made 1888

Boilers made at do By whom made do when made 1888

Registered Horse Power ~~50~~ 100 Owners Port belonging to

Official Number

ENGINES, &c.—

Description of Engines Twin Screw driving 4 Propllrs: Inwtd. Cylders:

Diameter of Cylinders 18" x 33" Length of Stroke 24" No. of Rev. per minute 80 Point of Cut off, High Pressure 3/4 Low Pressure 3/4

Diameter of Screw shaft 6¼ Diam. of Tunnel shaft ✓ Diam. of Crank shaft journals 7" Diam. of Crank pin 7" size of Crank webs 8" x 5"

Diameter of screw 6ft: Pitch of screw 10ft. No. of blades 4 state whether moveable no total surface 18.4 sq: ft:

No of Feed pumps 1 diameter of ditto 3 Stroke 9 Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 diameter of ditto 3 Stroke 9 Can one be overhauled while the other is at work ✓

Where do they pump from Engine Rm.

No. of Donkey Engines 1 Size of Pumps 5" dia 6" stroke. Where do they pump from Stoke Hold & Sea

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 and sizes Are they connected to condenser, or to circulating pump

How are the pumps worked Separate Engines.

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 no 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 Bilge discharge. How are they protected Wooden 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

Is the screw shaft tunnel watertight ~~no tunnel~~ and fitted with a sluice door ✓ worked from ✓

BOILERS, &c.—

Number of Boilers Two Description Multitubular Whether Steel or Iron Steel

Working Pressure 100 lbs: Tested by hydraulic pressure to 200 lbs: Date of test Mar. 31st 1888

Description of superheating apparatus or steam chest Steam dome.

Can each boiler be worked separately yes. Can the superheater be shut off and the boiler worked separately ✓

No. of square feet of fire grate surface in each boiler 32 sq: ft Description of safety valves Dbl spring No. to each boiler 2

Area of each valve 7.07 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 in: Diameter of boilers 15ft 3 in

Length of boilers 14 ft: description of riveting of shell long. seams Dble lap. circum. seams Single lap. Thickness of shell plates 11/16"

Diameter of rivet holes 1 1/16 ~~whether punched or~~ drilled pitch of rivets 3 3/4" Lap of plating 6 3/4"

Per centage of strength of longitudinal joint 73% working pressure of shell by rules 115 lbs: size of manholes in shell 15" x 12"

Size of compensating rings 6" x 3/4" No. of Furnaces in each boiler 2

Outside diameter 2'. 9" length, top 10'. 6" bottom thickness of plates 5/8" description of joint Welded. if rings are fitted yes.

Greatest length between rings 5.3 working pressure of furnace by the rules 125 lbs combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"

Pitch of stays to ditto, sides 8" 1/2 back 8" 1/2 top 8" 1/2 If stays are fitted with nuts or riveted heads nuts. working pressure of plating by rules 106 lbs. Diameter of stays at smallest part 1" 1/4 working pressure of ditto by rules 106 end plates in steam space, thickness 11/16"

Pitch of stays to ditto 14" how stays are secured nuts & rui wash, working pressure by rules 100 lbs diameter of stays at smallest part 2" working pressure by rules 144 lbs Front plates at bottom, thickness 11/16" Back plates, thickness 11/16"

Greatest pitch of stays 10 working pressure by rules 172 lbs: Diameter of tubes 3" 1/2 pitch of tubes 5 thickness of tube plates, front 5/8" 11/16" back 5/8" how stayed St. tubes pitch of stays 10" width of water spaces 10"

Diameter of ~~Superheater or~~ Steam chest 2'. 3" length 2'. 6 thickness of plates 3/8" description of longitudinal joint doub lap. diam. of rivet holes 13/16"

Pitch of rivets 2" 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 Double rivtd: 1 rui. 3 3/8 pitch:

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NO DONKEY BOILER— Description

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 easing 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

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

Manufacturer.

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

The machinery has been built under Special Survey. Material & Workmanship good & eligible in my opinion to be marked in the Register Book with ✠ L.M.C. 12.88
Safety valves set under steam to W.P. of 100lbs □ & Engines worked satisfactorily

It is submitted, that the vessel is eligible for ✠ L.M.C. 12-88
W A
18.12.88

+£2

The amount of Entry Fee .. £ 15 : : received by me, a/c 10/12/88

Special .. .. .. £ : :

Donkey Boiler Fee .. .. £ : :

Certificate (if required) .. £ : : 26/2 1889 A&B

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 FRIDAY 21 DEC 1888

+ Cmb 12/88

R. K. TAYLOR & SON, STEAM PRINTERS, 19 CLE STREET, CORNWELL ROAD, LONDON, S.E.