

REPORT ON MACHINERY. 49191

No. 292 on the Imp sp "Caroline" Port of London Received at London Office 19.2.89
 No. in Survey held at London Date, first Survey 5 Dec. Last Survey 18 Feb 1889
 Req. Book. (Number of Visits Nine.) Tons 356,483
 Master Davies Built at London By whom built Scott Russell When built 1853
 Engines made at S. Shields By whom made J. P. Rennoldson when made 1884
 Boilers made at Sunderland By whom made N. S. Marine when made 1877
 Registered Horse Power 75 Owners W. H. Sollas Port belonging to London

E. M. GINES, &c.—

Description of Engines Compound Inverted
 Diameter of Cylinders 20" & 38" Length of Stroke 26" No. of Rev. per minute 85 Point of Cut off, High Pressure _____ Low Pressure _____
 Diameter of Screw shaft 7" Diam. of Tunnel shaft 7" Diam. of Crank shaft journals 6 7/8" Diam. of Crank pin 7" size of Crank webs 8 3/8" x 4 3/8"
 Diameter of screw _____ Pitch of screw _____ No. of blades 3 state whether moveable No total surface _____
 No. of Feed pumps one diameter of ditto 3 1/2" Stroke 12" Can one be overhauled while the other is at work
 No. of Bilge pumps one diameter of ditto 3 1/2" Stroke 12" Can one be overhauled while the other is at work
 Where do they pump from Engine room Centre.
 No. of Donkey Engines one Size of Pumps 3 1/2" Where do they pump from Hotwell & Sea
 " " Rallied " " " 5" " " " Eng Room bilge, Sea & Tank
 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 Cocks
 No. of bilge injections one and sizes 3 1/2" Are they connected to condenser, or to circulating pump Circulating pump.
 How are the pumps worked Lever from after engine crosshead
 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 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 Jan 1889
 Is the screw shaft tunnel watertight None and fitted with a sluice door _____ worked from

BOILERS, &c.—

Number of Boilers one Description Cylindrical Multitubular Whether Steel or Iron Shell & lower front and back end plates renewed with steel
 Working Pressure 80 Tested by hydraulic pressure to 160 Date of test 21 Nov 1888
 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 42 Description of safety valves Spring (Empire) No. to each boiler Pair
 Area of each valve 12.56 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 _____ Diameter of boilers 13.0
 Length of boilers 10 u 6 description of riveting of shell long. seams double butts circum. seams double Thickness of shell plates 25" steel
 Diameter of rivet holes 1/16 whether punched or drilled drilled pitch of rivets 3 7/8" x 2 Lap of plating _____
 Percentage of strength of longitudinal joint 77.3 working pressure of shell by rules 88 size of manholes in shell 16 x 12"
 Size of compensating rings 28 x 24 No. of Furnaces in each boiler Three
 Outside diameter 2.11 7/8 length, top 7 u 2 bottom 9 u 9 thickness of plates 1/2 description of joint double strap single if rings are fitted No
 Greatest length between rings working pressure of furnace by the rules 88 combustion chamber plating, thickness, sides 1/2 back 1/2 top 1/2
 Pitch of stays to ditto, sides 9 x 8 1/4 back 10 x 8 top radius If stays are fitted with nuts or riveted heads riveted working pressure of plating by rules 84 Diameter of stays at smallest part 1/8 working pressure of ditto by rules _____ end plates in steam space, thickness 3/4" iron
 Pitch of stays to ditto 14" x 16" how stays are secured double angles working pressure by rules 90 diameter of stays at smallest part 2" square working pressure by rules 84 Front plates at bottom, thickness 3/4" steel Back plates, thickness 3/8" steel bottom
 Greatest pitch of stays 10" x 8" working pressure by rules _____ Diameter of tubes 3 1/2" pitch of tubes 4 3/4" x 5 thickness of tube plates, front 3/4 back 3/4 how stayed stay tube pitch of stays bas width of water spaces 5 3/4
 Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes
 Pitch of rivets 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

Form No. 6-500-17/8-86-T.S.S.—Transfer Ink.]



LONBBS-0124

49191 Jan

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:— *Two Connecting Rod top End bolts
Two bottom bolts, 2 main bearing bolts, three coupling bolts
one set feed pump valves + one set bilge pump valve*

The foregoing is a correct description,
Manufacturer.

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

The engines were built under survey for the tug "Royal Saxon", which was wrecked in 1886, They have now been put into first class condition.

The boiler appears to have been built in 1877 by the N.E. Marine for the "Lady Ann" owned by the Earl of Sutherland this vessel being wrecked about 1879. In 1881 the boiler was left at Messrs Hodge Millwall who renewed the shell and the back & front end lower plates by steel plates, list of tests enclosed. The workmanship of boiler appears good and it is in first class condition.

In my opinion the machinery of this vessel is eligible for the notification **L.M.C-1,89** in the Society's Register Book

Tail shaft examined in good condition (new, made from an old government shaft turned down).

It is submitted that this vessel is eligible to have L.M.C-2,89 recorded and NB 1877 N.F.84

filed 89
24-1-89

MM
21-2-89

21-2-89

The amount of Entry Fee .. £ 1 : 0 : received by me,
Special .. £ 5 : 5 :
Donkey Boiler Fee .. £ : :
Certificate (if required) .. £ : 2 : 6

To be sent as per margin
(Travelling Expenses, if any, £)

Committee's Minute

sub 2/89

FRIDAY 23 FEB 1889

NB 77 N.F. 84 filed 89

W. H. G. G. G.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Lloyd's Register Foundation