

REPORT ON MACHINERY.

No.

Received at London Office

FRIDAY 11th DEC 1885

No. in Survey held at

Date, first Survey 17th Sept

Last Survey 9th Nov

1885

Reg. Book.

(Number of Visits 8)

Tons

62 on the *S. S. Nautilus*

Master *Coles* Built at *Liverpool* By whom built *G. L. Euston*

When built 1874

Engines made at *Liverpool* By whom made *G. Clark*

when made 1874

Boilers made at *Hull* By whom made *Amos & Smith*

when made 1884

Registered Horse Power 95 Owners *General Steam Nav Co.* Port belonging to *London*

ENGINES, &c.—

Description of Engines

Diameter of Cylinders Length of Stroke No. of Rev. per minute Point of Cut off, High Pressure Low Pressure

Diameter of Screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs

Diameter of screw Pitch of screw No. of blades state whether moveable total surface

No. of Feed pumps diameter of ditto Stroke Can one be overhauled while the other is at work

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

Where do they pump from

No. of Donkey Engines Size of Pumps Where do they pump from

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

No. of bilge injections and sizes Are they connected to condenser, or to circulating pump

How are the pumps worked

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 *Yes* 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 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

Is the screw shaft tunnel watertight and fitted with a sluice door worked from

BOILERS, &c.—

Number of Boilers *one* Description *Return Multitubular* Whether Steel or Iron *Tubes & Ladders of iron*

Working Pressure *65 lbs.* Tested by hydraulic pressure to *130 lb.* Date of test *17th Sept 85*

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 *54* Description of safety valves *Spring* No. to each boiler *Two*

Area of each valve *15' 9"* Are they fitted with easing gear *Yes* No. of safety valves to superheater area of each valve

Are they fitted with easing gear *Yes* Smallest distance between boilers and bunkers or woodwork *6"* Diameter of boilers *150"*

Length of boilers *10' 6"* description of riveting of shell long. seams *double rivet BS. circum.* seams *double R laps.* Thickness of shell plates *20/32*

Diameter of rivet holes *1"* whether punched or drilled *drilled* pitch of rivets *4 1/6* Lap of plating *10" 1/2*

Percentage of strength of longitudinal joint *75 & 78 1/2* working pressure of shell by rules *90* size of manholes in shell *16" x 12"*

Size of compensating rings *6" x 3/4" at smallest part* No. of Furnaces in each boiler *Three*

Outside diameter *37"* length, top *7 1/2 ft* bottom *10 ft* thickness of plates *1/2* description of joint *double Butt SR.* if rings are fitted *1/2*

Greatest length between rings *7'* working pressure of furnace by the rules *86* combustion chamber plating, thickness, sides *1/2* back *1/2* top *1/2*

Pitch of stays to ditto, sides *9 x 9* back *8 x 10* top *9 x 9 1/2* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by

rules *77* Diameter of stays at smallest part *1 1/8* working pressure of ditto by rules *94* end plates in steam space, thickness *20/32*

Pitch of stays to ditto *15 1/2 x 18* how stays are secured *Washers & double nuts* working pressure by rules *77* diameter of stays at

smallest part *2 1/8* working pressure by rules *102* Front plates at bottom, thickness *5/8* Back plates, thickness *7/8*

Greatest pitch of stays *12"* working pressure by rules *97* Diameter of tubes *3 1/2* pitch of tubes *4 1/2* thickness of tube

plates, front *5/8* back *7/8* how stayed *ST Tubs* pitch of stays *9 x 13 1/2* width of water spaces *9 1/2"*

Diameter of Superheater or Steam chest *48"* length *8' 0"* thickness of plates *1/2* description of longitudinal joint *Lap DR.* diam. of rivet holes

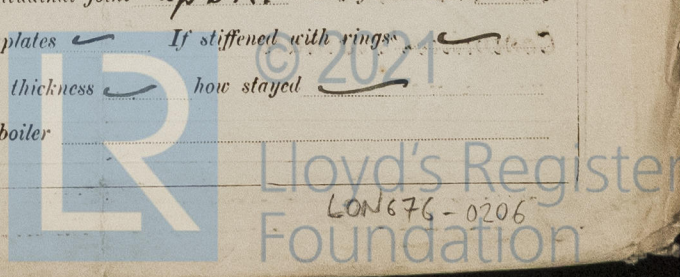
Pitch of rivets *2 5/8* working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings

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

Note: If Report is also sent on the Hull of the Ship

Form No. 4—(1885—14)



45638

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.)

A new main boiler has been fitted on board which has been built under the inspection of the Board of Trade for an other steamer. The attached list of steel test and some correspondence have been obtained from the owners. The boiler is stamped B.O.T 160 lbs 28,284. This boiler has been examined and found in a good condition and the dimensions taken as set down in this report. The safety valves have been set to blow at 65 lb.

Examined donkey boiler & found it in a good condition. Examined HP cylinder & slide valve & found them in a good condition. Examined both crank pins and found them good. A new propeller and a new lignum vitae bush have been fitted. Examined Leucovers & connections after they were shifted & found them good. The Ballast suction is on the ships bottom. It can easily be reached by lifting a large door in the hold.

Examined donkey boiler & found it in a good condition. As far as seen the machinery of this vessel is in a safe working condition and is in my opinion eligible to have the notification NB.85 and B.S. 12.85 recorded in the Register Book.

It is submitted that this vessel is eligible to have NB.85 and B.S. 12.85 recorded
 M 10/12/85

The amount of Entry Fee .. £ — : — : — received by me,
 Special .. 14/11/85 £ 4 : 4 : —
 Donkey Boiler Fee .. £ : :
 Certificate (if required) .. £ : : 30 Dec 1885
 To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

TUESDAY 15 DEC 1885

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



© 2021

Lloyd's Register
Foundation