

REPORT ON MACHINERY.

No.

No. in Survey held at
Reg. Book.

(Received in London Office 31/1/81)

Date, first Survey 2nd Jan 1880 Last Survey 29th Jan 1881

on the

Master

Built at

When built

Tons

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

ENGINES, &c.—

Description of Engines

Diameter of Cylinders

Length of Stroke

No. of Rev. per minute

Point of Cut off, High Pressure

Diameter of Screw shaft

Diameter of Tunnel shaft

Diameter of Crank shaft journals

Diameter of Crank pin

Diameter of screw

Pitch of screw

No. of blades

state whether moveable

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

Circulating pump.

How are the pumps worked

By levers from the piston rod crossheads.

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

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

bilge suction to forward hold

How are they protected

by wood 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

21st January 1881.

Is the screw shaft tunnel watertight

yes

and fitted with a sluice door

yes

worked from platform level with upper deck.

OILERS, &c.—

Number of Boilers

Description

Cylindrical, multitubular, Double ended (Steel)

Working Pressure

90 lbs.

Tested by hydraulic pressure to

180 lbs.

Date of test

15th Oct. 1880

Description of ~~superheating apparatus on~~ steam chest

Cylindrical, Horizontal.

Can each boiler be worked separately

yes

Can the superheater be shut off and the boiler worked separately

no Superheater

No. of square feet of fire grate surface in each boiler

100 sq. ft.

Description of safety valves

Vertical Spring

No. to each boiler

2

area of each valve

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

on woodwork

2.6"

Diameter of boilers

11.6"

Length of boilers

17.6"

description of riveting of shell long. seams

double riv? butt straps circum. seams double riv? lap joints

Thickness of shell plates

23/32"

diameter of rivet holes

1/16"

whether punched or drilled

drilled

pitch of rivets

4 1/8"

lap of plating

6 1/4"

per centage of strength of longitudinal joint

7/4

working pressure of shell by rules

96 lbs.

Size of manholes in shell

16" x 12"

size of compensating rings

6" x 3/4"

No. of Furnaces in each boiler

3

outside diameter

2.11"

length, top

6.0"

bottom

8.0" fitted with T. iron.

Thickness of plates

1/2"

description of joint

welded

if rings are fitted

40

greatest length between rings

Working pressure of furnace by the rules

106 lbs.

Combustion chamber plating, thickness, sides

7/16"

back

7/16"

top

7/16"

pitch of stays to ditto

sides

7 3/4"

back

7 3/4"

top

7 3/4"

Are stays fitted with nuts or riveted heads

nuts

working pressure of plating by rules

90 lbs.

Diameter of stays at smallest part

1 3/16"

working pressure of ditto by rules

110 lbs.

End plates in steam space, thickness

1/16"

pitch of stays to ditto

14 1/2" x 14"

how stays are secured

double nuts & riv? heads

Working pressure by rules

92 lbs.

diameter of stays at smallest part

2 3/16"

working pressure by rules

109 lbs.

Front plates at bottom, thickness

1/16"

Back plates, thickness

1/16"

greatest pitch of stays

14 1/2"

working pressure by rules


92 lbs.

Diameter of tubes $3\frac{1}{4}$ " pitch of tubes $4\frac{1}{2}$ " thickness of tube plates, front $\frac{5}{8}$ " back $\frac{5}{8}$ "
 How stayed *Stay tubes* pitch of stays $13\frac{1}{2} \times 9$ " width of water spaces $1\frac{1}{4}$ "
 Diameter of Superheater or Steam chest $3\frac{1}{2}$ " length $17\frac{1}{2}$ "
 Thickness of plates $\frac{3}{8}$ " description of longitudinal joint *lap, double* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets 3 "
 Working pressure of shell by rules 125 lbs. 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 $\frac{1}{2}$ " How stayed *4 gusset stays*
~~Superheater or steam chest~~; how connected to boiler *By wrought iron pipes 15" dia. $\frac{5}{8}$ " thick.*
DONKEY BOILER— Description *Cylindrical, multitubular (Steel)*
 Made at *Belfast* By whom made *John Brown & Sons* when made *26th January 1881*
 Where fixed *In the hold* ^{on raised platform} working pressure 50 lbs. Tested by hydraulic pressure to 100 lbs. No. of Certificate *95*
 Fire grate area *24.3 sq. ft.* Description of safety valves *Vertical opening* No. of safety valves *2* area of each *7.06*
 If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no*
 Diameter of donkey boiler $10\frac{1}{2}$ " length $8\frac{1}{2}$ " description of riveting *Double riveted lap joint*
 thickness of shell plates $\frac{1}{2}$ " diameter of rivet holes $\frac{7}{8}$ " whether punched or drilled *drilled*
 pitch of rivets $3\frac{3}{4}$ " lap of plating 1 " per centage of strength of joint 76
 thickness of crown plates stayed by
 Diameter of furnace, top $2\frac{1}{2}$ " bottom length of furnace $5\frac{1}{2}$ "
 thickness of plates $\frac{3}{16}$ " description of joint *Single butt strap*
 thickness of furnace crown plates stayed by
 Working pressure of shell by rules 66 lbs. working pressure of furnace by rules 99 lbs.
 diameter of uptake thickness of plates thickness of water tubes

The foregoing is a correct description,

James McA Manufacturer
except for Donkey Boilers.

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

The machinery and boilers of this vessel have been constructed under Special Survey. The workmanship is of good quality. they are now in good order and safe working condition and eligible in my opinion to have the notification  Lloyd's M.C. 1.87. recorded in the Register of this Society.

It is submitted that this vessel is eligible to have the notification of Lloyd's Register recorded in the Register of this Society.
M. 31/1/81

The amount of Entry Fee £ 3 : - - received by me,

Special *M.C.* £ 35 : - -

Certificate (if required) .. £ : : 18

To be sent as per margin.

(Travelling Expenses, if any, £ 6.6. -) *Pa. 22*

Committee's Minute

Tuesday February 1st 1881.

+ Lloyd's Register

Robert Edmund Taylor & Son Printers, 19, Old Street, Goswell Road, London, E.C.

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



Lloyd's Register Foundation

LR/PUN/BCL51/394R