

REPORT ON MACHINERY.

No. 6488

No. in Survey held at

Reg. Book.

on the

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Date, first Survey

Received at London Office

THURSDAY 1 JAN 1885

(Number of Visits)

3451.72

Tons 2255.33

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

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the discharge pipes above or below the deep water line

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

What pipes are carried through the bunkers

How are they 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

When were stern tube, propeller, screw shaft, and all connections examined

Is the screw shaft tunnel watertight

and fitted with a sluice door

worked from

OILERS, &c.—

Number of Boilers

Description

Whether Steel or Iron

Working Pressure

Tested by hydraulic pressure to

Date of test

Description of superheating apparatus or steam chest

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

No. to each boiler

Area of each valve

Are they fitted with easing gear

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

Length of boilers

description of riveting of shell long. seams

circum. seams

Thickness of shell plates

Diameter of rivet holes

whether punched or drilled

pitch of rivets

Lap of plating

Percentage 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

Outside diameter

length, top

bottom

thickness of plates

description of joint

if rings are fitted

Greatest length between rings

working pressure of furnace by the rules

combustion chamber plating, thickness, sides

back top

Pitch of stays to ditto, sides

back

top

If stays are fitted with nuts or riveted heads

working pressure of plating by

rules

Diameter of stays at smallest part

working pressure of ditto by rules

end plates in steam space, thickness

3"

Pitch of stays to ditto

how stays are secured

working pressure by rules

84 lbs

diameter of stays at

smallest part

Greatest pitch of stays

working pressure by rules

Diameter of tubes

pitch of tubes

thickness of tube

plates, front

back

how stayed

stay tubes

pitch of stays

width of water spaces

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

2019

Lloyd's Register Foundation

GLS150-0083

0788 JH

DONKEY BOILER— Description *Cyl. Mult*
Made at *Glasgow* by whom made *Messrs Muir & Houston* when made *1884* where fixed *Stokehold*
Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1420* fire grate area *23.5 sq ft* description of safety valves *direct spring* No. of safety valves *one* area of each *12.56 sq* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *no* diameter of donkey boiler *8 11* length *9 0* description of riveting *long tub riv lap*
Thickness of shell plates *9 16* diameter of rivet holes *1 3 16* whether punched or drilled *punched* pitch of rivets *4 5 16* lap of plating *8 5 16*
per centage of strength of joint *72%* thickness of ^{fire box} crown plates *7 16* stayed by *Screw Stays 1 1 4 dia pitched 8 x 8 with nuts*
Diameter of furnace, top *2 9 16* bottom *2 9 16* length of furnace *5 10* thickness of plates *7 16* description of joint *butt & riv*
Thickness of furnace crown plates *5 8* stayed by *stay tubes* working pressure of shell by rules *80 lbs*
Working pressure of furnace by rules *89 lbs* diameter of uptake *4 1 2* thickness of ^{end} plates *11 16* ^{with 2 stays 1 1 4 pitch} thickness of water tubes *11 16*

SPARE GEAR. State the articles supplied:— *2 con rod top end bolts & nuts 2 con rod bottom end bolts and nuts 2 main bearing bolts 1 set of coupling bolts 1 set of feed & bilge pump valves & propeller blades right & left 1 set of crank pin braces 1 half crank shaft 12 condenser tubes & boiler tubes assorted bolts & nuts and iron of various sizes*

The foregoing is a correct description,

Muir & Houston Manufacturer. *JH*

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

*The Engines and Boilers of this vessel have been constructed under Special Survey; they are of good material & workmanship and are now in good order and safe working condition, and eligible in our opinion to be noted in the Register Book * L M & 12-84*

The Shafting was examined at Messrs Muir & Houston's works when rough turned & afterwards, when they appeared to be sound & satisfactory

It is submitted that this vessel is eligible to have the notification & class recorded
M 4/1/85

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

Special .. £ 38 : - : -

Donkey Boiler Fee .. £ - : - : -

Certificate (if required) .. £ - : - : - *24/12/84*

To be sent as per margin.

(Travelling Expenses, if any, £ 2 - 2 - *to be submitted to Barrow.*

Committee's Minute

Glasgow FRIDAY 2 JAN 1885

J. L. Hindmarsh & John Underwood
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Glasgow.