

RECEIVED FROM
SURVEYOR.

7 OCT. 89

REPORT ON MACHINERY.

of LIVERPOOL.

WED 9 OCT 1889
TUES 8 OCT 1889

Received at London Office

No. in Survey held at
Reg. Book.

Date, first Survey April 16th

Last Survey Sept 18th 1889

(Number of Visits 16)

on the

Master

Built at

By whom built

Tons

Engines made at

By whom made

When built

Boilers made at

By whom made

when made

Registered Horse Power

Owners

when made 1889

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

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 in dry dock

Is the screw shaft tunnel watertight

and fitted with a sluice door

worked from

BOILERS, &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

Ditto

pitch of rivets

Lap of plating

Per centage 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

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

Pitch of stays to ditto

smallest part

how stays are secured

working pressure by rules

Front plates at bottom, thickness

Back plates, thickness

Greatest pitch of stays

working pressure by rules

Diameter of tubes

pitch of tubes

thickness of tube

plates, front

back

how stayed

pitch of stays

width of water spaces

diam. of rivet holes

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

FAL135-0094

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 casing 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 _____ description of joint _____
 Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of plates _____ working pressure of shell by rules _____
 Thickness of furnace crown plates _____ stayed by _____ thickness of plates _____ thickness of water tubes _____
 Working pressure of furnace by rules _____ diameter of uptake _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

David Rollos & Sons Manufacturer. of Main boilers only.

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

These boilers have been constructed under special survey
 in Liverpool, the material and workmanship were
 found good and efficient, and when tested with
 hydraulic pressure to 320 lbs per sq inch were found tight
 and satisfactory.
 They are now shipped to Hayle (Cornwall) to be fitted on
 board the vessel building by Messrs Hawley & Co.

LLOYD'S REGISTER
 Sir
 Mr
 consequence of the
 Chamber
 it will be my duty
 within three
 attracts from wh
 No. H. J.
 Morgan

It is submitted that this report be considered
 satisfactory, and should be sent to the surveyor
 at Falmouth for completion.

MA 10-10-89

The amount of Entry Fee .. £

received by me,

1/3 Special

Donkey Boiler Fee .. £

Certificate (if required) .. £

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

LIVERPOOL

8 OCT. 89

TUES 11 FEB 1890

transmit to London

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

Liverpool

Lloyd's Register
 Foundation