

REPORT ON MACHINERY.

9237

No. 9234

Port of Glasgow

Received at London Office

17 JUNE 1889

No. in Survey held at

Glasgow

Date, first Survey

24th Feb 1889

Last Survey

17th May 1889

(Number of Visits 13)

272 net

445 gross

161 on the Boiler for H.S. "Reveil"

Master

Kiley

Built at

Newcastle

By whom built

A. Leslie & Co.

When built

1878

Engines made at

Gateshead

By whom made

Black Hawthorn & Co.

when made

Boilers made at

Glasgow

By whom made

Messrs Lindsay Burnet & Co.

when made

1889, 5

Registered Horse Power

sixty

Owners

M. Morris

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

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

one

Description

Cylindrical. Multit.

Whether Steel or Iron

Steel

Working Pressure

85 lbs

Tested by hydraulic pressure to

170

Date of test

8th May 1889

Description of superheating apparatus or steam chest

Cylindrical horizontal

Can each boiler be worked separately

✓

Can the superheater be shut off and the boiler worked separately

no

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

34

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 12' 0"

Length of boilers 9' 6"

description of riveting of shell long. seams

treb lap

circum. seams

double lap

Thickness of shell plates 3/4"

Diameter of rivet holes 1 1/16"

whether punched or drilled

drilled

pitch of rivets

4"

Lap of plating

7/8"

Per centage of strength of longitudinal joint

73%

working pressure of shell by rules

87.4

size of manholes in shell

12" x 16"

Size of compensating rings

4 1/2" x 7/16"

No. of Furnaces in each boiler

2

Outside diameter 3' 7"

length, top 6' 0"

bottom 8' 9"

thickness of plates 1/2"

description of joint

double butt

if rings are fitted on bottom

Greatest length between rings 6' 0"

working pressure of furnace by the rules

86.6

combustion chamber plating, thickness, sides

7/16"

back 7/16"

top 7/16"

Pitch of stays to ditto, sides

7/8"

back 7/8"

top 7/8"

If stays are fitted with nuts or riveted heads

Nuts

working pressure of plating by

rules 87

Diameter of stays at smallest part

1 5/8"

working pressure of ditto by rules

110.0

end plates in steam space, thickness

7/16"

Pitch of stays to ditto

15" x 14"

how stays are secured

double plates

working pressure by rules

156

diameter of stays at

smallest part

1 7/8"

working pressure by rules

113

Front plates at bottom, thickness

7/16"

Back plates, thickness

5/8"

Greatest pitch of stays

16"

working pressure by rules

strengthened by

a doubling plate

Diameter of tubes

3 1/2"

pitch of tubes

4 3/4"

thickness of tube

plates, front

7/16"

back

5/8"

how stayed

tubes

pitch of stays

14 1/4"

width of water spaces

12' 2"

Diameter of Superheater or Steam chest

33"

length

4' 0"

thickness of plates

7/16"

description of longitudinal joint

lap

diam. of rivet holes

13/16"

Pitch of rivets

2 1/4"

working pressure of shell by rules

94.0

diameter of #11 x 14

thickness of plates

5/8"

If stiffened with rings

✓

Distance between rings

✓

working pressure by rules

9

end plates of superheater, or steam chest; thickness

7/16"

how stayed

3 stays

13 1/4" diam.

Superheater or steam chest; how connected to boiler

Single rivetted

Description of furnaces

9237 lbs

DONKEY BOILER— Description *Three tube Vertical steel*
Made at *Glasgow* by whom made *Morrison & Graham* when made *1889* where fixed
Working pressure *85 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *2268* fire grate area *7 sq ft.* description of safety
valves *all* No. of safety valves *all* area of each *all* if fitted with easing gear *all* if steam from main boilers can
enter the donkey boiler *all* diameter of donkey boiler *3' 9"* length *10' 6"* description of riveting *double lap*
Thickness of shell plates *3/8"* diameter of rivet holes *7/8"* whether punched or drilled *all* pitch of rivets *3/8"* lap of plating *4 3/8"*
per centage of strength of joint *70%* thickness of crown plates *1/2"* stayed by *4 stays 2" diam.*
Diameter of furnace, top *3' 1"* bottom *3' 3"* length of furnace *6' 0"* thickness of plates *1/2"* description of joint *lap*
Thickness of furnace crown plates *1/2"* stayed by *4 stays 2" diam.* working pressure of shell by rules *116 lbs*
Working pressure of furnace by rules *95 lbs* diameter of uptake *10* thickness of plates *3/8" iron* thickness of water tubes *3/8" iron*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

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

These boilers have been inspected during the course of construction & have been made in accordance with the Rules of this Society, they have undergone a satisfactory tests by hydraulic pressure, certificates of these tests have been duly signed & sent to the manufacturers.

It is submitted that these Boilers be considered satisfactory for a working pressure of 85 lbs per square inch
W. A.
17-6-89.

The amount of Entry Fee ... £ ... : received by me,
Special ... £ 5 : 5 :
Donkey Boiler Fee ... £ ... :
Certificate (if required) ... £ ... :
To be sent as per margin.

(Travelling Expenses, if any, £ ...)

Committee's Minute

TUES 18 JUNE 1889

Not for Comm

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

Charles Cooper
Glasgow