

REPORT ON MACHINERY.

No. 11302

Port of

Glasgow

MON. 22 FEB 1892

No. in Survey held at

Glasgow

Date, first Survey 10th Dec. 1891

Last Survey 12th Feb 1892

Reg. Book.

on the

Boiler No 525

(Number of Visits 9)

Tons } Gross
Net

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at

Glasgow

By whom made

Ross & Duncan

when made 1892

Registered Horse Power

Owners

Shipment to Cadiz.

Port belonging to

ENGINES, &c.—

Description of Engines

No. of Cylinders

Diam. of Cylinders

Length of Stroke

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.—

No. of Boilers

One

Description

Cylindrical Multitubular

Material

Steel - Stayed Steel

Letter (for record)

Working Pressure

100 lbs

Tested by hydraulic pressure to

200 lbs

Date of test

12th Feb 1892

Description of ~~superheating apparatus~~ or steam chest

Cylindrical Dome, Hemispherical End.

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

27.5

Description of safety valves

Direct Spring

No. to each boiler

Area of each valve

4.9

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 or woodwork

Diameter of boilers

9.0

Length of boilers

9.0

description of riveting of shell long. seams

Lap, Single Rivet

circum. seams

Lap, Single Rivet

Thickness of shell plates

3/16

Diameter of rivet holes

5/16

whether punched or drilled

Drilled

pitch of rivets

3 3/8

Lap of plating

6 1/2

Per centage of strength of longitudinal joint

73.8

working pressure of shell by rules

103 lbs

size of manholes in shell

15" x 11 1/2"

Size of compensating rings

6" x 7/16"

No. of Furnaces in each boiler

Two

Description of Furnaces

Plain

Outside diameter

34"

length

6.5"

thickness of plates

5/16"

description of joint

Welded

if rings are fitted

Greatest length between rings

✓

working pressure of furnace by the rules

102 lbs

combustion chamber plating, thickness, sides

7/16"

back

7/16"

top

7/16"

Pitch of stays to ditto, sides

1/4" x 1/4"

back

1/4" x 1/4"

top

1/4" x 1/4"

If stays are fitted with nuts or riveted heads

Nuts

working pressure of plating by

rules 103 lbs Diameter of stays at smallest part

5/16" + 1/16"

working pressure of ditto by rules

104 lbs

end plates in steam space, thickness

5"

Pitch of stays to ditto

13" x 13"

how stays are secured

Nuts & Washers

working pressure by rules

109 lbs

diameter of stays at

smallest part

1 1/2"

working pressure by rules

106 lbs

Front plates at bottom, thickness

7/16"

Back plates, thickness

5"

Greatest pitch of stays

17" x 8"

working pressure by rules

106 lbs

Diameter of tubes

3 1/2"

pitch of tubes

4 3/8" x 4 3/8"

thickness of tube

plates, front

7/16"

back

5"

how stayed

Subs + 1/2 stay

pitch of stays

13 1/2" x 8 1/2"

width of water spaces

6" to 10"

Diameter of ~~Superheater~~ or Steam chest

26"

length

26"

thickness of plates

3/8"

description of longitudinal joint

Welded

diam. of rivet holes

✓

Pitch of rivets

✓

working pressure of shell by rules

114 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

5"

how stayed

✓

Superheater on steam chest; how connected to boiler

Double Riveted Flange

It is also sent on the Hull of the Ship

142—L.R.P.H.—2,000—Form No. 8—Copy

Lloyd's Register
Foundation
GLS164-0156

11302 92

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,

Ross & Duncan Manufacturer.

J. Buchanan

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

A steel boiler of the dimensions given on the other side, has been built under Special Survey. The materials and workmanship throughout are good, and the boiler has been subjected to an hydraulic test, and satisfactorily proved, as required by the Rules of this Society. This boiler has been shipped from Glasgow to Cadiz.

It is submitted that Mr Beveridge be requested to state for what purpose this boiler is intended. C.E.S. 25.2.92.

It is submitted that no further action be taken in this matter. C.E.S. 25.2.92.

Certificate (if required) to be sent to _____

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

Special £ 3 : 3 : -

Donkey Boiler Fee £ : : 19/2/1892

(Travelling Expenses, if any, £ _____)

Committee's Minute

Not for form CE 7

U-16 pgs 23/2/92

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

Glasgow

Lloyd's Register Foundation