

REPORT ON MACHINERY.

No.

Port of Falmouth

Received at London Office

1UES. 22 MAR 1904

No. in Survey held at Falmouth

Date, first Survey 13th July 1903 Last Survey 14th Jan 4 1904

g. Book.

1 on the Hums box & Co late Order 253, for S. S. Deerhound,

(Number of Visits 44)

Tons Gross 420 Net 218

Master H. Roberts Built at London

By whom built Forrest & Sons

When built 1882-10

Engines made at FLS

By whom made R. H. Pearson & Co

when made 1882

Boilers made at Falmouth

By whom made Cox & Co

when made 1904

Registered Horse Power 70

Owners Lowey (Sgt. J.) S. S. Co Ltd

Port belonging to Lowey

Is Refrigerating Machinery fitted

Is Electric Light fitted

GINES, &c.—Description of Engines New Main Boilers Only

No. of Cylinders

No. of Cranks

a. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule
as fitted

Material of
screw shaft

the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

the propeller boss If the liner is in more than one length are the joints burned

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

ers are fitted, is the shaft lapped or protected between the liners

Length of stern bush

a. of Tunnel shaft

Dia. of Crank shaft journals

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

lars

Dia. of screw

Pitch of screw

No. of blades

State whether moveable

Total surface

a. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

a. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

a. of Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room

In Holds, &c.

a. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are that pipes are carried through the bunkers

How are they protected

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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

Is it fitted with a watertight door worked from

BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers

1319

Is forced draft fitted No

a. and Description of Boilers

One Cylindrical multitubular

Working Pressure 80 lbs

Tested by hydraulic pressure to 200 lbs

Date of test 6/10/03 Can each boiler be worked separately

Area of fire grate in each boiler 43

No. and Description of safety valves to

each boiler Two, spring loaded

Area of each valve 12.566

Pressure to which they are adjusted 85 lbs

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12"

Mean dia. of boilers 11-7"

Length 10-7"

Material of shell plates Steel

Thickness 2 1/32"

Range of tensile strength 27532

Are they welded or flanged No

Descrip. of riveting: cir. seams

double zigzag

long. seams double butt

Diameter of rivet holes in long. seams 27/32"

Pitch of rivets 4 5/8"

Lap of plates or width of butt straps 9 1/8"

Percentages of strength of longitudinal joint

rivets 82.4

Working pressure of shell by rules 105 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring 2-2 x 2-2 x 2 1/2"

No. and Description of Furnaces in each boiler Two, Plain

Material Steel

Outside diameter 3-8 1/2"

Length of plain part

top 7-0 1/2"

Thickness of plates

bottom 5/8"

Description of longitudinal joint

Single butt

No. of strengthening rings none

Working pressure of furnace by the rules 116 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 17/32"

Back 1/2"

Top 17/32"

Bottom 19/32"

Pitch of stays to ditto: Sides 9 1/4 x 8 1/2"

Back 8 5/8 x 8 5/8"

Top 9 1/4 x 8 1/2"

If stays are fitted with nuts or riveted heads

Stays

Working pressure by rules 103 7/16"

Material of stays Steel

Diameter at smallest part 1-2 1/4"

Area supported by each stay 83"

Working pressure by rules 116 7/16"

Material Steel

Thickness 2 1/32"

Pitch of stays 15 1/8"

How are stays secured

double

Working pressure by rules 102 8/16"

Material of stays Steel

Diameter at smallest part 1-8 1/4"

Area supported by each stay 236"

Working pressure by rules 12 1/16"

Material of Front plates at bottom Steel

Thickness 2 1/32"

Material of Lower back plate Steel

Thickness 9/16"

Greatest pitch of stays 11 1/2"

Working pressure of plate by rules 105 7/16"

Diameter of tubes 3 1/2"

Pitch of tubes 4 3/4"

Material of tube plates Steel

Thickness: Front 2 1/32"

Back 2 1/32"

Mean pitch of stays 11 7/8"

Pitch across wide water spaces 13 1/2"

Working pressures by rules 102 9/16", 109 6/16"

Girders to Chamber tops: Material Steel

Depth and

Thickness of girder at centre 7 1/8 x 1 1/4"

Length as per rule 31"

Distance apart 8 1/2"

Number and pitch of Stays in each

Two, 9 3/4"

Working pressure by rules 105 1/16"

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

es

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

DONKEY BOILER— No. _____ Description None Fitted

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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } From the 13th of July to the 10th of December 1903
 { During erection on board vessel - - } From the 10th of December 1903 to the 14th of January 1904
 Total No. of visits 77 Is the approved plan of main boiler forwarded herewith yes.

General Remarks (State quality of workmanship, opinions as to class, &c. This Boiler has been constructed under Special Survey by Messrs Cox & Co. at Falmouth
The materials and workmanship were found good and efficient when tested to 200 lbs per sq inch by Hydraulic Pressure was found tight and satisfactory, all the old mountings were taken off the old boiler refitted and used again, the Safety Valves were set to 85 lbs relieving freely at that pressure with no accumulation,
I therefore beg to submit for the Committee that a Special Certificate be granted for this Boiler to hold good conditionally with this being subject to the Rules as regards Surveys &c of the Society

The amount of Entry Fee. . . £ : : When applied for,
 Special £ 4 : 0 : 2/- 3 - 1904
 Donkey Boiler Fee . . . £ : : When received,
 Travelling Expenses (if any) £ : : 2/- 3 - 1904

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

Committee's Minute THUR. 31 MAR 1904

TUES. 31 MAY 1904

Assigned