

REPORT ON MACHINERY.

THUR, 17 SEP 1896

Port of

Glasgow

Received at London Office

18

No. in Survey held at
Reg. Book.

Glasgow

Date, first Survey 20 April

Last Survey 11 Sept 1896

(Number of Visits 146)

on the

S.S. Joseph Fisher.

Gross 286.
Net 64.

Master Thomas Nisbet

Built at

Fairley

By whom built

S. Lullarton & Co

When built 1896

Engines made at

Glasgow

By whom made

Hall Brown Buttery & Co

when made 1896

Boilers made at

Glasgow

By whom made

Jes. Anderson & Co

when made 1896

Registered Horse Power

45

Owners

Henry & Hilke S.P.C. Ltd

Port belonging to

Newry.

Nom. Horse Power as per Section 28

51.64

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound

No. of Cylinders Two

No. of Cranks 2

Diameter of Cylinders

16" & 32"

Length of Stroke

24"

Revolutions per minute

135

Diameter of Screw shaft

as per rule 6 1/4"

Diameter of Tunnel shaft

as per rule 5 3/16"

Diameter of Crank shaft journals

6 1/2"

Diameter of Crank pin

6 1/2"

Size of Crank webs

11 1/4" x 4 3/8"

Diameter of screw

8"-0"

Pitch of screw

10"-0"

No. of blades

4

State whether moveable

Yes

Total surface

19 1/4 sq ft

No. of Feed pumps

one

Diameter of ditto

2 7/8"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

one

Diameter of ditto

2 7/8"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

one

Sizes of Pumps

5 cwt 5 Stroke x 2 1/2"

Stroke

2 1/2"

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

In Engine Room

three

2", 2", and 3 1/2"

In Holds, &c.

Three, one 2" to fore peak, one 2"

to main hold starboard, and one 2" to main hold port.

No. of bilge injections

one

size

3 1/2"

Connected to condenser, or to circulating pump

No

Is a separate donkey suction fitted in Engine room & size

Yes 2"

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both.

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

Yes

Are the discharge pipes above or below the deep water line

above

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Yes

Are the blow off cocks fitted with a spigot and brass covering plate

Yes

What pipes are carried through the bunkers

Three

bell pipes to hold & peak

How are they protected

Hood, & iron plates.

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

Yes

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

Yes

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

Previous to

launching

Is the screw shaft tunnel watertight

Yes

Is it fitted with a watertight door

None

worked from

Yes

BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers

933 sq ft

Is forced draft fitted

No

No. and Description of Boilers

One multitubular

Working Pressure

120 lbs

Tested by hydraulic pressure to

240 lbs

Date of test

24/6/96

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

35 sq ft

No. and Description of safety valves to

each boiler

Two

direct spring

Area of each valve

4.9 sq in

Pressure to which they are adjusted

12.5

Are they fitted

with easing gear

Yes

Smallest distance between boilers or uptakes and

woodwork

4 inches

Length of boilers

9'-6"

Diameter of shell plates

Steel

Thickness

3/32"

Description of riveting: circum. seams

Lap

Single

long. seams

Double riveted

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

4 3/8"

Lap of plates or width of butt straps

11"

Per centages of strength of longitudinal joint

rivets 110%

plate 46%

Working pressure of shell by rules

122 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

Inchells

No. and Description of Furnaces in each boiler

2 plain

Material

Steel

Outside diameter

3'-6"

Length of plain part

top 6'-6"

Thickness of plates

bottom 8'-9"

Description of longitudinal joint

Welded

No. of strengthening rings

Half ring

Working pressure of furnace by the rules

132 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

3/16"

Back

3/16"

Top

3/16"

Bottom

3/16"

Pitch of stays to ditto: Sides

8" x 8"

Back

8" x 8"

Top

8" x 4 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

124 lbs

Material of stays

Steel

Diameter at smallest part

1"

Area supported by each stay

64 lbs

Working pressure by rules

124 lbs

plates in steam space:

Material

Steel

Thickness

3/32"

Pitch of stays

15" x 1 1/4"

How are stays secured

Donk nuts & washers

Working pressure by rules

128 lbs

Material of stays

Steel

Diameter at smallest part

(5")

Area supported by each stay

228"

Working pressure by rules

125 lbs

Material of Front plates at bottom

Steel

Thickness

1 1/16"

Material of Lower back plate

Steel

Thickness

3/32"

Greatest pitch of stays

14 1/4"

Working pressure of plate by rules

135 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

2 5/8"

Back

2 5/8"

Mean pitch of stays

12 3/8"

Pitch across wide water spaces

13 3/4"

Working pressures by rules

124 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

6 1/2" x 10 1/16"

Length as per rule

2' x 3"

Distance apart

4 1/2" x 8"

Working pressure by rules

126 lbs

Superheater or Steam chest; how connected to boiler

None

Can the superheater be shut off and the boiler worked

separately

Yes

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

If 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

Yes

Lloyd's Register

Foundation

2020

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DONKEY BOILER—

Description

Done.

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 casing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long. seams _____ Diameter 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:—

As required by rules. also one set of air, and one set of circulating pump valves. and two propeller blades.

The foregoing is a correct description,

Manufacturer.

Hall. Burn. Buttery & Co.

Dates of Survey while building
 During progress of work in shops—
 During erection on board vessel—
 Total No. of visits

1896—April 20, 24, May 4, 11, 15, 16, 18, 21, 22, 23, 26, 28, 29, June 4, 9, 10, 14, 19, 20, 22, 24, 26, 30, July 2, 8, 9, 11, 15, 24, 28, August 5, 7, 12, 12, 21, 28, 31, Sept 2, 3, 4, 8, 10, 11, —

General Remarks

(State quality of workmanship, opinion as to class, &c.)

The machinery of this vessel has been built under condition of special survey. The material and workmanship being of good quality, and a satisfactory full speed trial of machinery has been run. This vessel is now in our opinion eligible for the record of L.M.C. 9.96 in register book.

Boiler tracing, engine room plan, two pumping plan and two forging reports now forwarded.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 9.96

A.S.

17.9.96

The amount of Entry Fee.. £ 1 : " : When applied for.
 Special £ 8 : " : 12/9/96
 Donkey Boiler Fee £ " : " : When received.
 Travelling Expenses (if any) £ " : " : 15/9/96

MINUTE CERTIFICATE

Committee's Minute

FRI. 18 SEP 1896

WRITTEN.

Assigned

+ L.M.C. 9.96



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