

REPORT ON MACHINERY.

Port of *Glasgow*

Received at London Office

18

No. in Survey held at
Reg. Book.*Glasgow & Leith*

Date, first Survey

18th May

Last Survey

1 August 1896

on the

S.S. Huskisson.

(Number of Visits)

26

Gross Tons

1148.8

Net Tons

*1.8*Master *R. George*Built at *Leith*

By whom built

*John Crum & Co*When built *1896*

Engines made at

Leith

By whom made

John Crum & Co

when made

1896

Boiler made at

Glasgow

By whom made

Hindray Burnet & Co

when made

1896.8

Registered Horse Power

84

Owners

*Alexandra Towing Co (Limited) Port belonging to**Liverpool*

Nom. Horse Power as per Section 28

85

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Compound

No. of Cylinders

2

No. of Cranks

2

Diameter of Cylinders

21" & 42"

Length of Stroke

27"

Revolutions per minute

100

Diameter of Screw shaft

as per rule 7.57"

Diameter of Tunnel shaft

as fitted 7.19"

Diameter of Crank shaft journals

7 7/8"

Diameter of Crank pin

7 7/8"

Size of Crank webs

14 7/8" x 5 3/4"

Diameter of screw

9' 3"

Pitch of screw

14' 0"

No. of blades

4

State whether moveable

no

Total surface

33.34

No. of Feed pumps

1

Diameter of ditto

2 3/4"

Stroke

15"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

1

Diameter of ditto

3"

Stroke

15"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

one

Sizes of Pumps

5 1/4" x 3 1/2" x 5"

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

In Engine Room

*two 2" dia.*In Holds, &c. *one to each hold 2" dia.*

No. of bilge injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

yes

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

yes

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 cessel

yes

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

yes

What pipes are carried through the bunkers

none

How are they protected

✓

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

*new vessel*Is the screw shaft *bulkhead* watertight*yes*

Is it fitted with a watertight door

*no*worked from *✓*

BOILERS, &c.—

(Letter for record)

S

Total Heating Surface of Boilers

15220

Is forced draft fitted

no

No. and Description of Boilers

one cylindrical return tube

Working Pressure

100

Tested by hydraulic pressure to

200

Date of test

21/8/96

Can each boiler be worked separately

✓

Area of fire grate in each boiler

57.74

No. and Description of safety valves to

each boiler

two - spring

Area of each valve

9.620"

Pressure to which they are adjusted

100 lbs

Are they fitted

with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

5 ft

Mean diameter of boilers

14-0 25/32

Length

10-0

Material of shell plates

Steel

Thickness

25/32"

Description of riveting: circum. seams

D R Lap

long. seams

Double R butt

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

5 7/8"

Lap of plates or width of butt straps

16"

Per centages of strength of longitudinal joint

86

Working pressure of shell by rules

101

Size of manhole in shell

16" x 12"

Size of compensating ring

14" dia

No. and Description of Furnaces in each boiler

3 40x18

Material

Steel

Outside diameter

44 1/2"

Length of plain part

top 3 1/8"

Thickness of plates

bottom 3 1/8"

Description of longitudinal joint

Welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

115

Combustion chamber plates: Material

Steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

5/8"

Pitch of stays to ditto: Sides

11" x 11"

Back

10 1/2" x 10 1/2"

Top

10 1/2" x 9"

If stays are fitted with nuts or riveted heads

Butt on back

Working pressure by rules

111 1/2

Material of stays

Steel

Diameter at smallest part

1 1/4"

Area supported by each stay

12 1/2 sq in

Working pressure by rules

100

End plates in steam space:

Material

Steel

Thickness

1"

Pitch of stays

21 1/2" x 20 1/2"

How are stays secured

Double & washer

Working pressure by rules

100

Material of stays

Steel

Diameter at smallest part

5.270"

Area supported by each stay

46.20

Working pressure by rules

102

Material of Front plates at bottom

Steel

Thickness

1/16"

Material of Lower back plate

Steel

Diameter of tubes

3 1/2"

Pitch of tubes

4 7/8"

Material of tube plates

Steel

Thickness: Front

1/16"

Back

1/16"

Mean pitch of stays

12 5/16"

Pitch across wide water spaces

14 3/4"

Working pressures by rules

100

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

thickness of girder at centre

6 3/4" x 11 1/2"

Length as per rule

31"

Distance apart

10 1/2"

Number and pitch of Stays in each

two 9"

Working pressure by rules

100

Superheater or Steam chest; how connected to boiler

none

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

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

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**✓**Working pressure of end plates**Area of safety valves to superheater**Are they fitted with easing gear**✓**Working pressure of end plates**Area of safety valves to superheater**Are they fitted with easing gear**✓*

Working pressure of end plates

*Area of safety valves to superheater**Are they fitted with easing gear*

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 _____ Pressure to which they are adjusted _____ If fitted with easing 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 per Rule.*

The foregoing is a correct description,

Ridway Burnett & Co. Manufacturer. *John Brant & Co. Makers of Engines*

Dates of Survey while building { During progress of work in shops - 1896. May 18, 22, 28, June 1, 9, 14, 22, 26, 30 July 9, 15, 28, August 4.
 { During erection on board vessel - 9, 21
 Total No. of visits 42.

General Remarks (State quality of workmanship, opinions as to class, &c. *This boiler has been built under the usual conditions of survey. The material and workmanship being of good quality. and was afterwards tested by hydraulic pressure to two hundred pounds per square inch. This boiler has been forwarded to Leith to be fitted on board.*

Photo print of boiler now forwarded.

The engines of this vessel have been constructed under special survey, the materials & workmanship are found & good. The boiler has been securely fitted on board. The engines have been tried under steam & the safety valves of boiler adjusted at the working pressure. The machinery is now in good & safe working condition & eligible in my opinion to have the notation of *+ L M C 9, 96*

It is submitted that this vessel is eligible for THE RECORD + L. M. C. 9. 96

Handwritten signature: Thomas Field

The amount of Entry Fee. £ 1 : 0 : 0
 Special £ 4 : 4 : 0
 Donkey Boiler Fee £ 8 : 11 : 0
 Travelling Expenses (if any) £ : : 0

FRI 23 OCT 1896

Thomas Field
 George Hurdoch
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
 Assigned

+ L M C 9, 96