

REPORT ON MACHINERY

No. 30745

Received at London Office

WED. NOV. 1-1911

Date of writing Report

10

When handed in at Local Office

28.10.11 Port of Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey

7th Nov. 1910

Last Survey

21st Oct 1911

on the

S.S. "Glenston"

(Number of Visits)

Gross

3673.89

Tons

Net 2341.54

When built

1911

Master

J. Mills

Built at

Port Glasgow

By whom built

A. Rodger & Co

Engines made at

Glasgow

By whom made

A. Rodger & Co

when made

1911

Boilers made at

Glasgow

By whom made

Barclay Curle & Co

when made

1911

Registered Horse Power

Owners

S.S. Glenston Ltd. Eastern Craig & Co Port belonging to Glasgow

Nom. Horse Power as per Section 28

318

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24" 40" 65"

Length of Stroke

42"

Revs. per minute

74

Dia. of Screw shaft

as per rule 13.35

Material of

steel

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

Yes

Is the after end of the liner made water tight

in the propeller boss

—

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

length

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

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

—

Length of stern bush

4-7"

Dia. of Tunnel shaft

as per rule 11.8

Dia. of Crank shaft journals

as per rule 12.4

Dia. of Crank pin

12 1/2"

Size of Crank webs

7-12 1/2"

Dia. of thrust shaft under

collars

12 1/2"

Dia. of screw

17-0

Pitch of Screw

17-3"

No. of Blades

4

State whether moveable

No

Total surface

90 sq ft

No. of Feed pumps

2

Diameter of ditto

3 1/2"

Stroke

21"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

21"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

3

Sizes of Pumps

9" x 10" x 10" 7" x 6" x 8" 5" x 3 1/2" x 6"

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

In Engine Room

(3) 3 1/2"

In Holds, &c. (2) in each hold 3 1/2" x 10" in tunnel

No. of Bilge Injections

1

sizes

5-

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 3 1/2"

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

No

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

—

What pipes are carried through the bunkers

1st Bilge Suctions

How are they protected

Wood casings

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

Dates of examination of completion of fitting of Sea Connections

See General Rpt of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from top platform

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No

No. and Description of Boilers

2 Single ended return tubes

Working Pressure

180

Tested by hydraulic pressure to

—

Date of test

—

No. of Certificate

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

pair direct Spring

Area of each valve

7-0

Pressure to which they are adjusted

180

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

—

Length

—

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue 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

002340-002351-0187

Lloyd's Register
Foundation

VERTICAL DONKEY BOILER—Manufacturers of Steel

No.	Description		When made		Where fixed	
Made at	By whom made		When made		Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety	
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment		
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 Plates	
Working pressure of shell by rules	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		
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey			

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main driving bolts & nuts, 1 set of coupling bolts, fuel & edge pump valves, 1 propeller and shaft complete, iron, bolts & nuts assorted.

The foregoing is a correct description,

C. Rodger & Co. Manufacturer.

Dates of Survey while building
 During progress of work in shops— 1910. Nov 7. 22. 23. Dec 7. 13. 20. 1911. Jan 9. 16. 19. 23. Feb 1. 13. 27. Mar 15. 18.
 During erection on board vessel— 23. 31. April 4. 10. 25. May 8. 9. 15. 20. 28. July 4. 25. 29. Aug 24. 29. Sep 2. 12. 2.
 Total No. of visits 30. *HR* Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 9/5/11 Slides 9/5/11 Covers 9/5/11 Pistons 9/5/11 Rods 9/1/11
 Connecting rods 9/4/11 Crank shaft 27/2/11 Thrust shaft 10/4/11 Tunnel shafts 10/4/11 Screw shaft 24/8/11 Propeller 24/8/11
 Stern tube 24/8/11 Steam pipes tested 12/10/11 Engine and boiler seatings Engines holding down bolts 6/10/11
 Completion of pumping arrangements 17/10/11 Boilers fixed 6/10/11 Engines tried under steam 19/10/11
 Main boiler safety valves adjusted 14/10/11 Thickness of adjusting washers *Pal. Bolts 7 5/16, 5 5/16, 5 5/16, 5 5/16, 5 5/16*
 Material of Crank shaft *Steel* Identification Mark on Do. *W.D.M.* Material of Thrust shaft *Steel* Identification Mark on Do. *W.D.M.*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *W.D.M.* Material of Screw shafts *Steel* Identification Marks on Do. *W.D.M.*
 Material of Steam Pipes *S.D. Copper* Test pressure *360 lbs*

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines and boilers have been built under special survey, the materials and workmanship are of good description, they have been well fitted on board and tried under steam.*
This machinery is now in our opinion eligible to have notification of L.M.C. 10. 11. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 10, 11.

HR
 2-11-11

The amount of Entry Fee .. £ 3 : 0 :
 Special .. £ 35 : 18 :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 30/10/11
 When received, 30. 11. 11

A.M. Keane & H.C. Forster
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned + L.M.C. 10, 11.

MACHINERY CERTIFICATE WRITTEN.