

Received from
Surveyor

REPORT ON MACHINERY

11 SEP 1900

7 - SEP. 1900

Port of Glasgow

Received at London Office

No. in Survey held at
Reg. Book.

Date, first Survey 6 June 1899 Last Survey 30 Sept. 1900.

(Number of Visits 44)

on the

S.S. Bohemian

Tons

Gross 8547 5/8
Net 5542 4/1

Master N. McCallum Built at

Glasgow

By whom built

A. Stephen & Sons

When built 1900

Engines made at

Glasgow

By whom made

A. Stephen & Sons

when made 1900

Boilers made at

Glasgow

By whom made

A. Stephen & Sons

when made 1900

Registered Horse Power

Owners

F. Leyland & Co (1900) Limited

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

807

Is Refrigerating Machinery fitted

yes

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders three

No. of Cranks three

Dia. of Cylinders

32", 34", 90"

Length of Stroke

66"

Revs. per minute

65

Dia. of Screw shaft

as per rule 17 5/8

Lgth. of stern bush

75"

Dia. of Tunnel shaft

as per rule 17 1/2

Dia. of Crank shaft journals

as per rule 17 1/2

Dia. of Crank pin

18 1/2"

Size of Crank webs

26 x 12 1/2"

Dia. of thrust shaft under

collars

17 3/4"

Dia. of screw

20" 3"

Pitch of screw

26" 1"

No. of blades

4

State whether moveable

yes

Total surface

120 sq ft

No. of Feed pumps

2

Diameter of ditto

9 1/2"

Stroke

26"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

8 1/2"

Stroke

33"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

two

Sizes of Pumps

18 x 8 x 15" & 8"

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

In Engine Room

from 8 1/2"

In Holds, &c.

from 8 1/2"

from 8 1/2"

from 8 1/2"

from 8 1/2"

from 8 1/2"

from 8 1/2"

from 8 1/2"

No. of bilge injections

one size 8"

Connected to condenser, or to circulating pump

pump

Is a separate donkey suction fitted in Engine room & size

yes 8 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

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 using 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

none

How are they protected

by stokehold 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 bilge

yes

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

by L. L. L.

Is the screw shaft tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

Is forced draft fitted

no

BOILERS, &c.—

(Letter for record A)

Total Heating Surface of Boilers

13548 sq ft

Is forced draft fitted

no

No. and Description of Boilers

2 double & 2 single ended

Working Pressure

190 lbs

Tested by hydraulic pressure to

380

Date of test

18/6/10

Can each boiler be worked separately

yes

Area of fire grate in each boiler

DE 112 1/2 sq ft

No. and Description of safety valves to

each boiler

DE 3 & 2

Area of each valve

DE 13 3/8 sq ft

Pressure to which they are adjusted

195 lbs

Smallest distance between boilers or uptakes and bunkers or woodwork

6" 9"

Mean dia. of boilers

15 1/2"

Length

DE 17 1/2"

Material of shell plates

steel

Thickness

1 1/2"

Range of tensile strength

24 x 32

Are they welded or flanged

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

9 3/8"

Lap of plates or width of butt straps

2 1/2"

Per centages of strength of longitudinal joint

rivets 80.5

Working pressure of shell by rules

220 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

14" rule

No. and Description of Furnaces in each boiler

2 masonry

Material

steel

Outside diameter

48"

Length of plain part

top 1 1/2"

Thickness of plates

crown 5"

Description of longitudinal joint

Working pressure of furnace by the rules

210 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

3/8"

Back

5/8"

Top

3/8"

Bottom

1/2"

Pitch of stays to ditto: Sides

8 x 8 1/2"

Back

8 x 8 1/2"

Top

8 x 9 1/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

190 lbs

Material of stays

iron

Material of stays

iron

Diameter at smallest part

2 1/4"

Area supported by

stay 74 1/2"

Working pressure by rules

212 lbs

End plates in steam space:

Material

steel

Thickness

1 1/2"

Material of Front plates at bottom

steel

Pitch of stays

16 x 20"

How are stays secured

27 nuts

Working pressure by rules

259 lbs

Material of stays

iron

Diameter at smallest part

8 3/4"

Area supported by each stay

Thickness

1 1/2"

Material of Lower back plate

steel

Thickness

1 3/8"

Greatest pitch of stays

13 1/2"

Working pressure of plate by rules

350 lbs

Diameter of tubes

3"

Pitch of tubes

Pitch across wide water spaces

1 1/4" with 8 double

Working pressures by rules

350 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

11 1/2 x 8

Length as per rule

SE 33"

Distance apart

9 1/2"

Working pressure by rules

DE 4

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

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

yes

Lloyd's Register

Foundation

CLS 290-0040

DONKEY BOILER— ~~No~~ *None* Description

Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	No. of Certificate	Fire grate area
No. of safety valves	Area of each	Pressure to which they are adjusted	If fitted with easing gear
enter the donkey boiler	Dia. of donkey boiler	Length	Material of shell plates
strength	Thicknes	Range of tensile	
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	Thicknes
Dia. of stays	Diameter of furnace Top	Bottom	Length of furnace
joint	Thicknes	Stayed by	Working pressure of shell by rules
Working pressure of furnace by rules	Diameter of uptake	Thicknes	Thicknes

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set crank shaft coupling bolts & nuts, 1 set tunnel shaft coupling bolts & nuts, 1 set of valves for bilge pump, 1 set bilge pump valve iron of various sizes, bolts & nuts assorted, 1 set each H. P. & S. P. piston rings. The foregoing is a correct description; Two propeller blades

Wm. Stephens Son, *Manufacturer.*

During progress of work in shops - - 1899: June. 6. Jy. 31. Aug. 8. 25. 31. Sep. 15. 22. 28. Oct. 3. 11. 24. Nov. 2. 20. 22. 29. Dec. 21. Jan. 10. 17.

Dates of Survey while building During erection on board vessel - - Feb. 1. 8. 19. 28. Mar. 16. Apr. 3. 20. May 1. 16. 18. June. 8. 21. 26. Jy. 2. 4. 5. 6. 30. 31. Aug. 1. 2. 3. 6. 20. 31.

Total No. of visits HH.

Is the approved plan of main boiler forwarded herewith *yes*

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 & tried under steam.

In my opinion this machinery is eligible to
have notification of **LMC 8.00** in the Register Book

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

11.9.00

11.9.00

The amount of Entry Fee..	£	3	:	:	When applied for,
Special	£	60	:	7	5/9/900
Donkey Boiler Fee	£	:	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	7/9/1000

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

Committee's Minute Glasgow. 10 SEP 1900

MACHINERY CERTIFICATE
WRITTEN 12/9/00

Laszow

Certificate (if required) to be sent to _____
(for the space for Committee's Minute.)