

REPORT ON MACHINERY

No. 8768.
TUE. DEC. 15. 1914

Received at London Office

Date of writing Report

19

When handed in at Local Office

Dec. 14th 1914

Port of MIDDLESBRO'

No. in Survey held at
Reg. Book.

Stockholm

Date, First Survey

May 21st 1914

Last Survey

December 7th 1914.

on the

STEEL S.S. STEAMER "GABRIEL"

(Number of Visits 43)

Master

Built at

Stockholm

By whom built

Messrs J. J. & Sons (No. 491)

Tons

Gross

Net

When built

1914

Engines made at

Stockholm

By whom made

Messrs Salais & Co (No. 180)

When made

1914

Boilers made at

Stockholm

By whom made

Messrs Salais & Co

when made

1914

Registered Horse Power

Owners

Port belonging to

London

Nom. Horse Power as per Section 28

362

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

Three

No. of Cranks

3

Dia. of Cylinders

25-42-68

Length of Stroke

48"

Revs. per minute

60

Dia. of Screw shaft

as per rule 4.33
as fitted 15.2

Material of

iron

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

Yes

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

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

Length of stern bush

5'-4"

Dia. of Tunnel shaft

as per rule 12.44
as fitted 13.2

Dia. of Crank shaft journals

as per rule 13.38
as fitted 14

Dia. of Crank pin

14 1/2

Size of Crank webs

24 1/2 x 9 1/2

Dia. of thrust shaft under

collars

14 1/2

Dia. of screw

17-6

Pitch of Screw

17-0

No. of Blades

4

State whether moveable

No

Total surface

98#

No. of Feed pumps

2

Diameter of ditto

3 1/2

Stroke

34

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

34

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

B-10" x 10" : F-4" x 8"

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

In Engine Room

3 at 3 1/2" and dry tank one at 3 1/2"

In Holds, &c.

2 at 3 1/2" in ea. hold

Gunnel well

No. of Bilge Injections

1 size

4

Connected ~~condensers~~ to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

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

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

Suctions to fire pumps

How are they protected

Wood covering

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

23-9-14

of Stern Tube

23-9-14

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

J. Salais & Sons

Total Heating Surface of Boilers

5460#

Is Forced Draft fitted

No

No. and Description of Boilers

3. S. S. Multitubular

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

13-10-14

No. of Certificate

5402

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

54.2#

No. and Description of Safety Valves to

each boiler

Two Spring loaded

Area of each valve

4.56

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-0"

Mean dia. of boilers

14'-3"

Length

11'-0"

Material of shell plates

Thickness

1 3/4"

Range of tensile strength

29 1/2-33

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

long. seams

2B-3R

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

8 3/16"

In of plates or

width of butt straps

18 1/2 x 1 1/2"

Per centages of strength of longitudinal joint

rivets 92.6
plate 85.4

Working pressure of shell by rules

183 lbs

Size of manhole in shell

16 x 12

Size of compensating ring

4 1/2 x 1 3/4"

No. and Description of Furnaces in each boiler

3 Morrison

Material

Steel

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown 3 3/4
bottom 3 1/4

Description of longitudinal joint

weld

No. of strengthening rings

Working pressure of furnace by the rules

189 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

1 1/16"

Bottom

Pitch of stays to ditto: Sides

9 1/2 x 9 1/2

Back

9 1/2 x 9 1/2

Top

9 1/2 x 9 1/2

If stays are fitted with nuts or riveted heads

No

Working pressure by rules

Material of stays

Steel

Diameter at smallest part

1.99

Area supported by each stay

85.5

Working pressure by rules

210 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/32"

Pitch of stays

18 1/2 x 18 1/2

How are stays secured

Weld

Working pressure by rules

214 lbs

Material of stays

Diameter at smallest part

6 1/2"

Area supported by each stay

324

Working pressure by rules

196 lbs

Material of Front plates at bottom

Thickness

1 1/16"

Material of Lower back plate

Steel

Thickness

1"

Greatest pitch of stays

14 1/2 x 9 3/8"

Working pressure of plate by rules

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2 x 4 1/8"

Material of tube plates

Steel

Thickness: Front

1 1/16"

Back

1 1/16"

Mean pitch of stays

Pitch across wide water spaces

14 1/2"

Working pressures by rules

192 lbs

Girders to Chamber tops: Material

thickness of girder at centre

4 1/2 x 1 3/4"

Length as per rule

29"

Distance apart

9 1/2"

Number and pitch of stays in each

Working pressure by rules

190 lbs

Superheater or Steam chest; how connected to boiler

None

Can the superheater be shut off and the boiler worked

separately

Yes

Diameter

Yes

Length

Yes

Thickness of shell plates

Yes

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Yes

Working pressure of shell by rules

Yes

Diameter of flue

Yes

Material of flue plates

Thickness

If stiffened with rings

Yes

Distance between rings

Yes

Working pressure by rules

Yes

End plates: Thickness

How stayed

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

have

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Is the approved plan of main boiler forwarded herewith

General Remarks (State quality of workmanship, opinions as to class, &c.)

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 12.14

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

Assigned

* Lm 6.12.14



Lloyd's Register
Foundation