

REPORT ON BOILERS.

No. **9310 a**
THUR. 30 AUG 1906

Port of Hamburg

Received at London Office

19

No. in Survey held at

Kiel

Date, first Survey 5th Aug

Last Survey 26th August 1906

(Number of Visits 15)

Gross 2639

Tons Net 1683

Survey held at

on the Steel S.S. "Secalia"

Master A. Jensen

Built at

Kiel

By whom built

Howaldtswerke

When built 1906

Engines made at

Kiel

By whom made

Howaldtswerke

When made 1906

Boilers made at

Kiel

By whom made

Howaldtswerke

When made 1906

Registered Horse Power 206

Owners

Dampskibsselskabet "Dan" (A/S) Port belonging to Copenhagen

MULTITUBULAR BOILER

~~Donkey~~ MANUFACTURED OR DONKEY

Manufacturers of Steel

Glasgow Iron & Steel Co. Ltd. Glasgow

Letter for record

5

Total Heating Surface of Boilers 758 sq ft

Is forced draft fitted

no

No. and Description of

Boilers

1 Single ended multitubular Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 26.5.06

No. of Certificate

Can each boiler be worked separately

yes

Area of fire grate in each boiler

25.3 sq ft

No. and Description of

safety valves to each boiler

2 Spring loaded

Area of each valve

4.5 sq in

Pressure to which they are adjusted 100 lbs

Are they fitted with easing gear

yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

no

Smallest distance between boilers

on uptakes and bunkers on woodwork

12"

Mean dia. of boilers

9' 1 7/16"

Length 9' 0 7/16"

Material of shell plates

Steel

Thickness

.64

Range of tensile strength

27-30 tons

Are the shell plates welded or flanged

—

Descrip. of riveting: cir. seams

lap dbl. riv. long. seams

lap dbl. riv.

Diameter of rivet holes in long. seams

1"

Pitch of rivets

3"

Lap of plates or width of butt straps

5.4"

Per centages of strength of longitudinal joint

66.6%

Working pressure of shell by

rules

101.4 lbs

Size of manhole in shell

11.8 x 15.7"

Size of compensating ring

6" x 63"

No. and Description of Furnaces in each

boiler

2

Material

Steel

Outside diameter

33"

Length of plain part

5"

Thickness of plates

.4"

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

157 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

.56"

Back

.56"

Top

.56"

Bottom

.62"

Pitch of stays to ditto: Sides

7.5"

Back

7.5"

Top

6.8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

190 lbs

Material of stays

Steel

Diameter at

smallest part

1.12"

Area supported by each stay

56 sq in

Working pressure by rules

160 lbs

End plates in steam space: Material

Steel

Thickness

.68

Pitch of stays

13.75"

How are stays secured

dbl. riv. on shell

Working pressure by rules

127.4 lbs

Material of stays

Steel

Diameter at smallest part

1.75"

Area supported by each stay

95 sq in

Working pressure by rules

110 lbs

Material of Front plates at bottom

Steel

Thickness

.7

Material of

Lower back plate

Steel

Thickness

.65

Greatest pitch of stays

22"

Working pressure of plate by rules

105 lbs

Diameter of tubes

3.3"

Pitch of tubes

4.3"

Material of tube plates

Steel

Thickness: Front

.7"

Back

.7"

Mean pitch of stays

8.2"

Pitch across wide

water spaces

13.75"

Working pressures by rules

120.3 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

4.3"

Length as per rule

19.7 lbs

Distance apart

6.8"

Number and pitch of Stays in each

1-

Working pressure by rules

100.5 lbs

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

—

VERTICAL DONKEY BOILER

No.

Description

Manufacturers of steel

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

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

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

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,

HOWALDTSWERKE

Manufacturer.

George Howaldt for the manager 2/5, 5/5, 8/5, 24/5, 12/6, 29/6, 2/7, 21/7, 26

Dates of Survey

while building

During erection on board vessel

31/7, 7/8, 15/8, 20/8, 24/8, 25/8, 26

Total No. of visits

15

Is the approved plan of main boiler forwarded herewith

donkey

yes

W 93-0099

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

Materials and workmanship of this Donkey Boiler are of very best description and eligible for a warrant entered in the Society's Register Book. The Best Materials have been used as required by the Rules. Under steam I adjusted the Safety valve to 100 lbs. pressure, the thickness of adjusting washers being $3\frac{1}{4}$ in the case of the Stove valve and $2\frac{1}{4}$ in the case of the Port valve.

I beg to recommend that the working pressure of this Boiler be entered in the Register Book with 100 lbs.

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	19
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	19

31 AUG 1906

Committee's Minute

Assigned

See Minute
on attached report

J. H. Richards
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

J. Köhler
Lloyd's Register
Foundation