

REPORT ON BOILERS.

No. 10368 a

Port of Hamburg

Received at London Office

MUN 27 JUN 1908

No. in Survey held at Flensburg

Date first Survey 3rd Jan 1908

Last Survey 8th July

19 08

Reg. Book.

Supp. 32 on the Steel S.S.

"Niagara"

(Number of Visits 9)

Gross 6655
Net 4119
Tons

Master B. Schau

Built at Flensburg

By whom built Flensburger Schiffbau Ges.

When built 1908 - 7

Engines made at Flensburg

By whom made Flensburger Schiffbau Ges.

when made 1908

Boilers made at Flensburg

By whom made Flensburger Schiffbau Ges.

when made 1908

Registered Horse Power 620

Owners Deutsch-Amerika Petroleum Ges.

Port belonging to Hamburg

MULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Krupp Thyssen & Co., Leeds Eng. Co.

(Letter for record S)

Total Heating Surface of Boilers 1201 sq. ft.

Is forced draft fitted no

No. and Description of Boilers 1 single ended multitubular

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 22.2.08

No. of Certificate —

Can each boiler be worked separately yes

Area of fire grate in each boiler 37.3 sq. ft.

No. and Description of safety valves to each boiler 2 spring loaded

Area of each valve 8.25 sq. in.

Pressure to which they are adjusted 180 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 or uptakes and bunkers 26"

Mean dia. of boilers 11" 0/4

Length 11" 8"

Material of shell plates Steel

Thickness .94"

Range of tensile strength 28-32 tons

Are the shell plates welded or flanged —

Descrip. of riveting: cir. seams lap, dbl. riv.

long. seams dbl. butt, trip. riv.

Diameter of rivet holes in long. seams 1/2"

Pitch of rivets 7/8"

Lap of plates or width of butt straps 17.4"

Per centages of strength of longitudinal joint rivets 111.8%

plate 84.7%

Working pressure of shell by rules 181.1 lbs

boiler 2 Morrisons

Material Steel

Outside diameter 42.9"

Length of plain part 4"

Thickness of plates crown .6"

bottom .6"

Description of longitudinal joint welded

No. of strengthening rings none

Working pressure of furnace by the rules 220 lbs

Combustion chamber plates: Material Steel

Thickness: Sides .625"

Back .6"

Top .625"

Bottom 1"

Pitch of stays to ditto: Sides 7.8"

Back 7.7"

Top 7.8" If stays are fitted with nuts or riveted heads both

Working pressure by rules 221 lbs

Material of stays Steel

Diameter at smallest part 1.5"

Area supported by each stay 22 sq. in.

Working pressure by rules 232.2 lbs

End plates in steam space: Material Steel

Thickness 1.03"

Pitch of stays 16"

How are stays secured dbl. nuts and washers

Working pressure by rules 272.7 lbs

Material of Front plates at bottom Steel

Thickness 1.03"

Material of Lower back plate Steel

Thickness 1"

Greatest pitch of stays 17"

Pitch of tubes 4.4"

Material of tube plates Steel

Thickness: Front 1.03"

Back .9"

Mean pitch of stays 8.8"

Pitch across wide water spaces 14.4"

Working pressures by rules 200 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of girder at centre 9"

Length as per rule 34"

Distance apart 7.5"

Number and pitch of Stays in each 3-8.175"

Working pressure by rules 231.6 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

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

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

Radius of do.

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,
Flensburger Schiffbau-Gesellschaft

Manufacturer.

Dates of Survey

During progress of work in shops

3/1.1901, 12/2, 13/3, 2/4, 29/4.08

During erection on board vessel

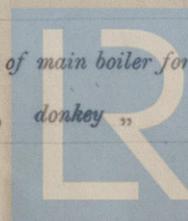
15/6, 2/7, 8/7.08

Total No. of visits

9

Is the approved plan of main boiler forwarded herewith

" " " donkey " "



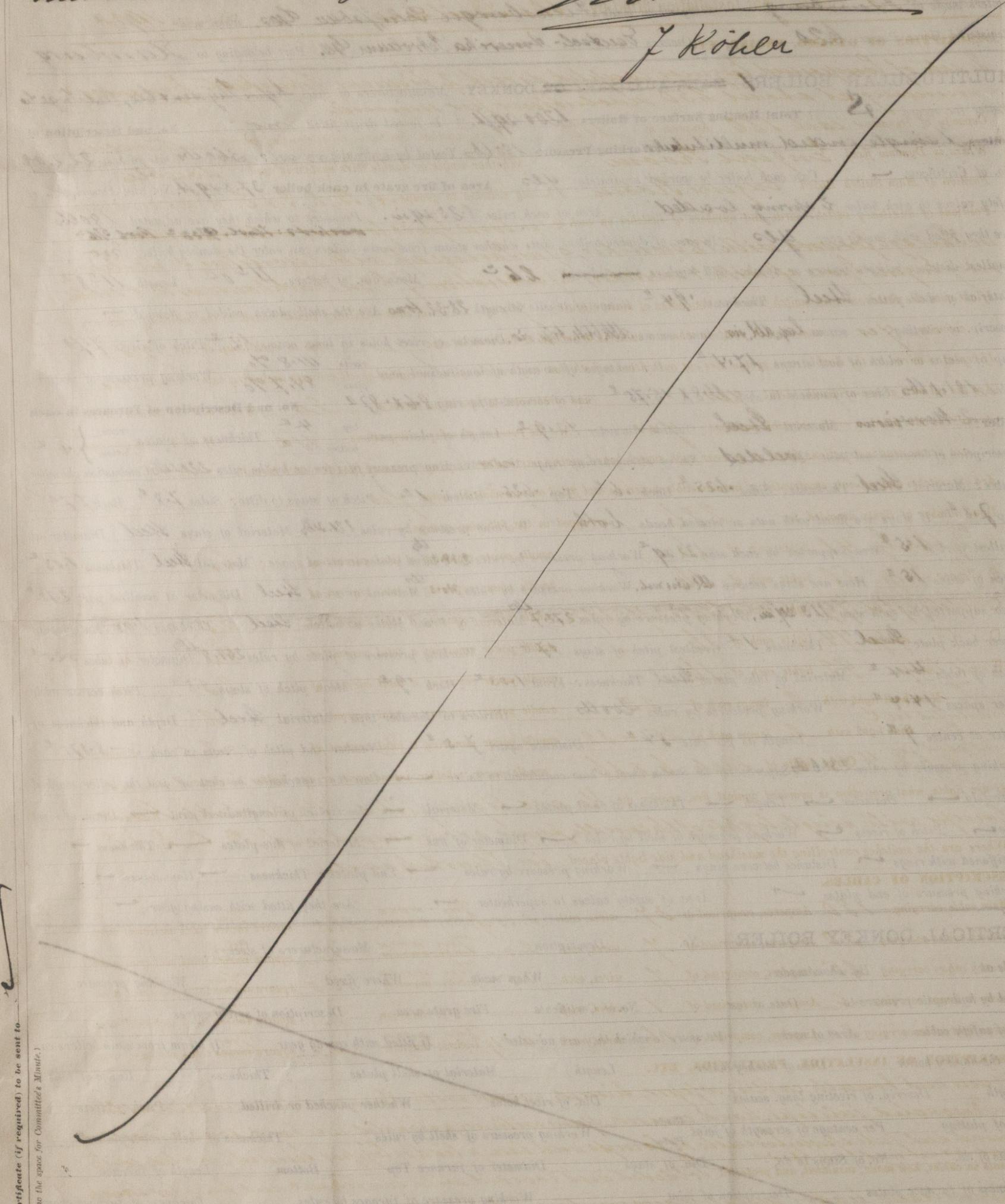
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GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

Materials and workmanship of this Donkey Boiler are of best description. The Steel Materials have been tested as per Rules. The Safety valves have been set to 180 lbs. on the 7th July 1908. For further particulars please see Main Report on this account 1st Entry.

M. Ruess
J. Köhler



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Certificate (if required) to be sent to

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

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	10
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	10

Committee's Minute
 Assigned

JUL 28 1908

M. Ruess
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

J. Köhler