

Rpt. 5.

REPORT ON BOILERS.

No. 1140

Port of *Bremerhaven*

Received at London Office **FRI. 30 MAR 1906**

No. in Survey held at *Bremen*

Date, first Survey *25th July 1905* Last Survey *23rd March 1906*

Reg. Book.

(Number of Visits *23*)

on the *Donkey Boiler of the S. S. Lotheringen*

Gross *5008.49*
Tons Net *3198.29*

Master

Built at *Bremen*

By whom built *Act. Ges. Weser*

When built *1906*

Engines made at *Bremen*

By whom made *Act. Ges. Weser*

when made *1906*

Boilers made at *Bremen*

By whom made *Act. Ges. Weser*

when made *1906*

Registered Horse Power *530*

Owners *Nordd. Lloyd*

Port belonging to *Bremen*

MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel *Thyssen & Co.*

(Letter for record *S*) Total Heating Surface of Boilers *1614* Is forced draft fitted *No* No. and Description of

Boilers *One single ended multitubular* Working Pressure *220* Tested by hydraulic pressure to *292* Date of test *9.1.06*

No. of Certificate *66* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *50.6* No. and Description of

safety valves to each boiler *2 improved spring valves* Area of each valve *8 1/2* Pressure to which they are adjusted *220*

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 or woodwork *2 feet* Mean dia. of boilers *12' 9 1/2* Length *10' 8 1/8*

Material of shell plates *S.M. steel* Thickness *1 2 3/4* Range of tensile strength *26.7-29.8* Are the shell plates welded or flanged *flanged*

Descrip. of riveting: cir. seams *all overlapped* long. seams *all butt straps* Diameter of rivet holes in long. seams *1 1/4* Pitch of rivets *1 5/8*

Lap of plates or width of butt straps *25 5/16* Per centages of strength of longitudinal joint rivets *127%* Working pressure of shell by

rules *260* Size of manhole in shell *11 3/16 x 15 3/4* Size of compensating ring *45 1/4 x 4 1/2 x 1 3/8* No. and Description of Furnaces in each

boiler *2 corrugated* Material *S.M. steel* Outside diameter *4' 3/4* Length of plain part top *3 1/4* Thickness of plates crown *4 9/16*

Description of longitudinal joint *welded* No. of strengthening rings *corrug.* Working pressure of furnace by the rules *251* Combustion chamber

plates: Material *S.M. steel* Thickness: Sides *4 5/16* Back *4 3/16* Top *4 5/16* Bottom *1 3/16* Pitch of stays to ditto: Sides *7 1/8* Back *7 1/8*

Top *7 1/8* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *224* Material of stays *S.M. steel* Diameter at

smallest part *1 5/8* Area supported by each stay *50.7* Working pressure by rules *367* End plates in steam space: Material *S.M. steel* Thickness *1 3/16*

Pitch of stays *1' 3"* How are stays secured *secured with washers* Working pressure by rules *218* Material of stays *S.M. steel* Diameter at smallest part *2 23/32*

Area supported by each stay *225* Working pressure by rules *257* Material of Front plates at bottom *S.M. steel* Thickness *1 1/16* Material of

Lower back plate *S.M. steel* Thickness *1* Greatest pitch of stays *7 1/8* Working pressure of plate by rules *680* Diameter of tubes *3*

Pitch of tubes *4* Material of tube plates *S.M. steel* Thickness: Front *1 1/16* Back *3/32* Mean pitch of stays *8"* Pitch across wide

water spaces *14"* Working pressures by rules *260* Girders to Chamber tops: Material *S.M. steel* Depth and thickness of

girder at centre *9 1/2 x 2 3/8* Length as per rule *27 1/16* Distance apart *7 1/16* Number and pitch of Stays in each *3 at 7 1/8"*

Working pressure by rules *340* 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,

Act. Ges. Weser Manufacturer.

Dates of Survey while building

During progress of work in shops -- *25/7, 3/8, 8/8, 15/8, 25/8, 8/9, 19/9, 29/9, 1/10, 27/10, 2/11, 29/11, 12/12, 28/12, 1905, 9/1, 15/1, 23/1.*
During erection on board vessel -- *8/2, 15/2, 22/2, 9/3, 16/3, 23/3, 1906.*
Total No. of visits *23.*

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

donkey

Yes

Lloyd's Register

W1070-0183

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

This Boiler has also been built under special Survey, material and workmanship is good. It has been tested by hydraulic pressure of 291.5 as pr. German Law at the request of the Owners and found quite tight, under steam it is also tight.

For further particulars as spare gear etc. please see Report N. 1140 on machinery.

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 ...	£	:	:	
Donkey Boiler Fee ...	£	:	:	When received.
Travelling Expenses (if any) £	:	:	:	19

See Report on machinery N. 1140.

J. Thomson

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

Committee's Minute

TUES. 3 APL 1906

Assigned

See minute on attached rpt.



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