

# REPORT ON BOILERS.

No. 24820

Port of *Glasgow*

Received at London Office

TUES. JAN 22 1907

No. in Survey held at *Dumbarton*

Date, first Survey *11<sup>th</sup> Oct 06*

Last Survey *14<sup>th</sup> Jan 1907*

Reg. Book.

on the *Austrian Lloyd's Steam Navigation Co No 107*

(Number of Visits)

Tons } Gross  
Net

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at *Dumbarton*

By whom made *Denny & Co, No 504124*

when made *1907*

Registered Horse Power

Owners

Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel *Lamarsh, Colville, S. Coys*

(Letter for record)

Total Heating Surface of Boilers *6000 sq ft*

Is forced draft fitted

No. and Description of

Boilers *2 Cylindrical return tube*

Working Pressure *200 lbs*

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler *73.25*

No. and Description of

safety valves to each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers *16'-4 1/2"* Length *11'-6"*

Material of shell plates *steel*

Thickness *1 1/2"*

Range of tensile strength *28 1/2" - 31 1/2"* Are the shell plates welded or flanged *no*

Descrip. of riveting: cir. seams *Lap double* long. seams *butt tube*

Diameter of rivet holes in long. seams *1 1/2"* Pitch of rivets *9 3/4"*

Lap of plates or width of butt straps *22 1/4"*

Per centages of strength of longitudinal joint

rivets *90*  
plate *84.6*

Working pressure of shell by

rules *210 lbs*

Size of manhole in shell *16" x 12"*

Size of compensating ring *no nuts*

No. and Description of Furnaces in each

boiler *4 Doughton*

Material *steel*

Outside diameter *44 1/4"*

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint *weld*

No. of strengthening rings

Working pressure of furnace by the rules *213*

Combustion chamber

plates: Material *steel*

Thickness: Sides *21/32*

Back *9/8*

Top *11/16*

Bottom *21/32*

Pitch of stays to ditto: Sides *9" x 8"* Back *8" x 7 1/2"*

Top *9" x 8 1/2"* If stays are fitted with nuts or riveted heads *nuts*

Working pressure by rules *206, 214* Material of stays *iron*

Area

smallest part *1.73* Area supported by each stay *72"*

Working pressure by rules *230*

End plates in steam space: Material *steel* Thickness *1 1/2"*

Pitch of stays *17 1/4" x 16 1/2"* How are stays secured *22 x 22*

Working pressure by rules *215*

Material of stays *steel* Diameter at smallest part *6.1"*

Area supported by each stay *285"*

Working pressure by rules *216*

Material of Front plates at bottom *steel*

Thickness *31/32* Material of

Lower back plate *steel*

Thickness *31/32*

Greatest pitch of stays *13 1/4"*

Working pressure of plate by rules *272* Diameter of tubes *2 1/2"*

Pitch of tubes *3 3/4" x 3 3/4"* Material of tube plates *steel*

Thickness: Front *31/32*

Back *3/4"*

Mean pitch of stays *7 1/2"*

Pitch across wide

water spaces *13 1/2"*

Working pressures by rules *358 + 221*

Girders to Chamber tops: Material *steel*

Depth and thickness of

girder at centre *10" x 7/8"*

Length as per rule *81.5*

Distance apart *8 1/4"*

Number and pitch of Stays in each *(2) 9"*

Working pressure by rules *287*

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

## 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,

*Denny & Co* Manufacturer.

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - - Total No. of visits

*1906: Oct. 11, 16 Nov. 5, 19, 21 Dec. 14, 19 1907: Jan 9, 14.*

Is the approved plan of main boiler forwarded herewith

" " " donkey " " Lloyd's Register Foundation

W1599-0168



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

As far as completed these boilers have been built under special survey. The materials and workmanship are of good description, they have now been forwarded in pieces to the Drydock where to complete the survey the boilers have to be erected and riveting of shells, furnaces etc, tubes and stays fitted and the boilers afterwards tested by hydraulic pressure to 400 lbs. per square inch.

Certificate (if required) to be sent to

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

*See*  
The amount of Entry Fee... £ : :  
Special ... £ 10 : 10 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 19  
When received, 27. 9. 07 1.10.0

To be collected at Quays when vessel completed

*A. McEand*

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

Committee's Minute

Glasgow 21 JAN 1907

TUES. 24 SEP 1907

Assigned

Deferred for completion. *WLC*



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