

## REPORT ON BOILERS.

No. 38162

Received at London Office

18.1918

Date of writing Report

191

When handed in at Local Office

191

Port of Glasgow

No. in Survey held at

Glasgow

Date, First Survey

Last Survey

191

Reg. Book.

on the

S.S. "Macharda"

(Number of Visits)

Gross  
Tons  
Net

Master

Built at Port Glasgow

By whom built Russell &amp; Co (710)

When built 1918

Engines made at

Glasgow

By whom made D Rowan &amp; Co Ltd (683)

When made 1918

Boilers made at

Glasgow

By whom made D Rowan &amp; Co Ltd (683)

When made 1918

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—~~MAIN~~, AUXILIARY OR ~~DONKEY~~—Manufacturers of Steel

The Steel Company of Scotland Ltd

(Letter for record

3) Total Heating Surface of Boilers 2775<sup>sq</sup> ftIs forced draft fitted *no*

No. and Description of

Boilers

*one single ended*

Working Pressure 220

Tested by hydraulic pressure to 440

Date of test 7.5.18

No. of Certificate 14265

Can each boiler be worked separately

Area of fire grate in each boiler 62<sup>sq</sup> ft

No. and Description of

safety valves to each boiler

*1 pair direct spring*Area of each valve 5.94<sup>sq</sup> inPressure to which they are adjusted 225<sup>lb</sup>Are they fitted with easing gear *yes*

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 *about 1-3"**Int.*

Mean dia. of boilers 15'-6"

Length 12'-0"

Material of shell plates *steel*

Thickness 1/2"

Range of tensile strength 28-32

Are the shell plates welded or flanged *no*Descrip. of riveting: cir. seams *lap 50%*long. seams *table butt*

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 10 1/8"

Lap of plates or width of butt straps 23"

Per centages of strength of longitudinal joint

rivets 94  
plate 84.6

Working pressure of shell by

rules 220

Size of manhole in shell 16"x12"

Size of compensating ring 33"x37"x1 1/8"

No. and Description of Furnaces in each

boiler 3 Deighton

Material *steel*

Outside diameter 49 1/32"

Length of plain part

top  
bottom

Thickness of plates

crown 4 3/8  
bottom 6 1/4Description of longitudinal joint *welded*

No. of strengthening rings 212

Working pressure of furnace by the rules 222

Combustion chamber

plates: Material *steel*

Thickness: Sides 23/32

Back 23/32

Top 23/32

Bottom 15/16

Pitch of stays to ditto: Sides 9"x10 1/2"

Back 8 3/4"x10 3/4"

Top 10 1/2"x9" If stays are fitted with nuts or riveted heads *nuts*

Working pressure by rules 220

Material of stays *steel*

Diameter at

smallest part 2.395 Area supported by each stay 94.5

Working pressure by rules 220

End plates in steam space: Material *steel*

Thickness 1 1/32"

Pitch of stays 20 3/4"x21" How are stays secured *2 nuts*

Working pressure by rules 220

Material of stays *steel*

Diameter at smallest part

9.62  
8.19Area supported by each stay 435<sup>sq</sup> in

Working pressure by rules 223

Material of Front plates at bottom *steel*

Thickness 15/16"

Material of

Lower back plate *steel*

Thickness 23/32

Greatest pitch of stays 13 3/16"

Working pressure of plate by rules 226

Diameter of tubes 3"

Pitch of tubes 4 1/4"x4 1/16"

Material of tube plates *steel*

Thickness: Front 15/16"

Back 27/32"

Mean pitch of stays 10 1/32"

Pitch across wide

water spaces 13 3/16"

Working pressures by rules 220

Girders to Chamber tops: Material *steel*

Depth and thickness of

girder at centre 11 1/4"x15 1/16" double Length as per rule 37 3/8"

Distance apart 10 1/2"

Number and pitch of Stays in each *3 @ 9"*

Working pressure by rules 221

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

The foregoing is a correct description,

David Rowan &amp; Co Ltd

Manufacturer.

Dates of Survey  
During progress of  
work in shops - -  
while  
During erection on  
board vessel - -  
building

See accompanying Machinery Report.

Is the approved plan of boiler forwarded herewith *yes*

Total No. of visits

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

*This boiler has been built**under special survey the materials and workmanship are of good description.*

Survey Fee ... £

When applied for, ...

191

Travelling Expenses (if any) £

When received, ...

191

A. M. Stewart & W. H. Copeman  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

GLASGOW

17 SEP 1918

Assigned

*See accompanying machinery report.*Lloyd's Register  
Foundation

20600-0153