

REPORT ON BOILERS.

No. 8861

Received at London Office

FRI. MAR. 5-1915

Date of writing Report

191

When handed in at Local Office

Mar. 4 1915 Port of Middlesbrough

No. in
Reg. Book.

Survey held at Middlesbrough

Date, First Survey April 8 1914 Last Survey November 10 1914

(Number of Visits SS.)

(SSN° 222) Tons

Gross

Net

on the steel new steamer SOUTHWESTERN MILLER

Master

Built at Newcastle

By whom built The Northumberland S. B. Co. When built 1915

Engines made at

Hartlepool

By whom made Richardsons, Westgarth & Co. Ld. (N° HZ319) when made 1915

Boilers made at

Middlesbrough

By whom made Richardsons, Westgarth & Co. Ld. (N° M2232) when made 1915

Registered Horse Power

Owners Norfolk & American S. S. Co. Ld.
(Business, Middlesbrough & Co. Ld. agents)

Port belonging to Hartlepool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY

Manufacturers of Steel John Spencer & Son Ld.

(Letter for record

(S)

Total Heating Surface of Boilers 10300 sq ft

Is forced draft fitted

yes

No. and Description of

Boilers

Three S. E. Cyl. Mult.

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 10.11.14

No. of Certificate

5415

Can each boiler be worked separately

yes

Area of fire grate in each boiler 77.9 sq ft

No. and Description of

safety valves to each boiler

Two direct spring

Area of each valve 15.9 sq in

Pressure to which they are adjusted 182 lb

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

18 in

Mean dia. of boilers

17.6 in

Length 12.0 in

Material of shell plates

Steel

Thickness 1 7/16 in

Range of tensile strength 28 1/2 - 32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams

A. R. Lap

Long. seams

B. S. S. Rivets

Diameter of rivet holes in long. seams 1 7/16 in

Pitch of rivets 10 1/4 in

Lap of plates or width of butt straps

22 3/4 in

Per centages of strength of longitudinal joint

rivets 88.8

plate 84.7

Working pressure of shell by

rules 210 lbs

Size of manhole in shell 16 1/2 x 13 in

Size of compensating ring 33 3/4 x 30 1/2 x 1 1/2 in

No. and Description of Furnaces in each

boiler

Four Morrison

Material Steel

Outside diameter 3.10 1/2 in

Length of plain part

top 5 in

Thickness of plates

crown 5/8 in

bottom 5/8 in

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules

217 lbs

Combustion chamber

plates: Material Steel

Thickness: Sides 5/8 in

Back 5/8 in

Top 5/8 in

Bottom 7/8 in

Pitch of stays to ditto: Sides

8 1/4 x 7 3/4 in

Back

8 1/4 x 7 5/8 in

Top

8 1/4 x 7 in

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

210 lbs

Material of stays Steel

smallest part 1.48 in

Area supported by each stay

64 sq in

Working pressure by rules

185 lbs

End plates in steam space: Material Steel

Thickness 1 3/32 in

Area

Diameter at smallest part

8.25 in

7.02 in

Pitch of stays 20 x 17 1/2 in

How are stays secured

Nuts

Working pressure by rules

220 lbs

Material of stays Steel

Area

Diameter at smallest part

8.25 in

7.02 in

Material of Front plates at bottom Steel

Thickness 3/32 in

Lower back plate Steel

Thickness 1 3/16 in

Greatest pitch of stays 13 x 8 1/4 in

Working pressure of plate by rules

192 lbs

Diameter of tubes 2 1/2 in

Pitch of tubes 3 3/4 x 3 3/4 in

Material of tube plates Steel

Thickness: Front 3/32 in

Back 1/16 in

Mean pitch of stays 9 3/8 in

Pitch across wide

water spaces 13 1/2 in

Working pressures by rules

185 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 8 3/4 x 1 3/4 in

Length as per rule

2 - 9 8 3/8 in

Distance apart 8 5/8 in

Number and pitch of Stays in each 3 @ 7 in

Working pressure by rules

193 lbs

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

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

yes

Survey of these Boilers requested by R. W. Westgarth

The foregoing is a correct description,

RICHARDSONS, WESTGARTH & CO., LTD.

Manufacturers.

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