

REPORT ON BOILERS.

Spl. No. 13452

No. 5798

FRL 14 MAY 1909

Date of writing Report 10.5.09

When handed in at Local Office 13th May 1909

Received at London Office

No. in Survey held at

Stockton-on-Tees

Date, First Survey 2nd April

Last Survey 7th May 1909

Reg. Book.

16 Supp. on the "ARMSTOR" S/S "NAPOLIANA"

Port of MIDDLESBROUGH-ON-TEES.

Master E. M. Smith

Built at W. Hartlepool

By whom built Irvin's N.B. & Dry Dock Co. Ltd.

When built 1909.

Engines made at Hartlepool

By whom made

Richardsons Newbath & Co. Ltd.

when made 1909.

Boilers made at Stockton

By whom made

J. Sudron & Co. Ltd. (Plr. No. 2518)

when made 1909.

Registered Horse Power

Owners

Thames, N. & Co. Ltd.

Port belonging to

Hartlepool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spencer & Sons

(Letter for record (S))

Total Heating Surface of Boilers 622 sq

Is forced draft fitted

No. and Description of

Boilers One Single Ended

Working Pressure 100 lbs

Tested by hydraulic pressure to 200

Date of test 7.5.09

No. of Certificate 4263

Can each boiler be worked separately

Area of fire grate in each boiler 26.5 sq

No. and Description of

safety valves to each boiler

2, Spring loaded

Area of each valve

5.94 sq

Pressure to which they are adjusted 103 lbs per sq

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' 0"

6 ft

Mean dia. of boilers

9' 0"

Length 9' 0"

Material of shell plates Steel

Thickness 5/8

Range of tensile strength 28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

Lap single long. seams

Lap. 3 Riv

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets 3 1/2"

Lap of plates or width of butt straps

6 1/2"

Per centages of strength of longitudinal joint

rivets 80.4

Working pressure of shell by

rules

112 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

5 1/2" x 1 3/16"

No. and Description of Furnaces in each

boiler 2 plain

Material Steel

Outside diameter 2' 9"

Length of plain part

top 5' 9"

bottom 7' 7"

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

none

Working pressure of furnace by the rules 101 lbs

plates: Material Steel

Thickness: Sides 1/2"

Back 1/2"

Top 1/2"

Bottom 1/4"

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

Top 8 1/2" x 8"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules 112

Material of stays

Steel

Diameter at

smallest part 1.11

Area supported by each stay

76 sq

Working pressure by rules 117

End plates in steam space: Material

Steel

Thickness

25"

1/2"

Pitch of stays 15 1/2" x 16 1/2"

How are stays secured

Nuts & washers

Working pressure by rules 112

Material of stays

Steel

Diameter at smallest part

1.84

Area supported by each stay

255.75 sq

Working pressure by rules 108

Material of Front plates at bottom

Steel

Thickness

25"

Material of

Lower back plate

Steel

Thickness

25"

Greatest pitch of stays

13" x 9"

Working pressure of plate by rules 167

Diameter of tubes

3"

Pitch of tubes 4 1/4" x 4 1/4"

Material of tube plates

Steel

Thickness: Front

25"

Back

12"

Mean pitch of stays

9.6"

Pitch across wide

water spaces

13 1/2"

Working pressures by rules

120 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

5 1/2" x 1 1/4"

Length as per rule

20.7"

Distance apart

8 1/2"

Number and pitch of Stays in each

one @ 8"

Working pressure by rules

120

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,

THOMAS SUDRON & CO. LIMITED.

B. Johnston

Manufacturer.

Dates

During progress of

1909 Apr. 2, 7, 15, 23, 29, May 4

of Survey

work in shops - -

while

During erection on

building

board vessel - - -

Is the approved plan of boiler forwarded herewith

yes

Total No. of visits

6

GENERAL REMARKS

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

This boiler has been built under special survey in accordance with the plan forwarded herewith and in general conformity with the Rules. The materials and workmanship are sound and good, and on completion the boiler was tested by hydraulic pressure with satisfactory results. Now efficiently fitted in place (clockhole)

Survey Fee

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£ 2 - 2 - 0

When applied for

Monthly 1909

Travelling Expenses (if any) £

✓

When received

19

Committee's Minute

FRI. 30 JUL 1909

Assigned

See minute on

N.M. RM 13752

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

C. J. Hudson

Lloyd's Register Foundation

W 468-0071