

REPORT ON BOILERS.

No. 61026

Received at London Office

FRI. SEP. 15. 1911

Date of writing Report

19

When handed in at Local Office

19

Port of **NEWCASTLE - ON - TYNE.**No. in Survey held at
Reg. Book.

Newcastle on Tyne

Date, First Survey 27th Jun 1910Last Survey 23rd Aug 1911

on the

S. S. "Pancras"

(Number of Visits

Gross 4436

Tons Net 2809

Master

Built at

Hebburn

By whom built

Hawthorn Leslie & Co.

When built 1911

Engines made at

Wallsend

By whom made

H. E. Marine Engineering Co. Ltd.

When made 1911

Boilers made at

Wallsend

By whom made

Ditto

When made 1911

Registered Horse Power

Owners Booth S. S. Co. Ltd.

Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spencer & Sons

(Letter for record

r

Total Heating Surface of Boilers

1325⁴

Is forced draft fitted

no

No. and Description of

Boilers

one S. E. Cylindrical Mult

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs Date of test 15.2.11

No. of Certificate

8090

Can each boiler be worked separately

✓

Area of fire grate in each boiler

38⁴

No. and Description of

safety valves to each boiler

2 Spring Patent

Area of each valve

4.9⁴

Pressure to which they are adjusted

183 lbs

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

21"

Inside

Mean dia. of boilers

12' 0"

Length

10' 8³/₈"

Material of shell plates

steel

Thickness

1¹/₂"

Range of tensile strength

28³/₃₂

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

d. r. lap. long. seams

t. r. d. b. s.

Diameter of rivet holes in long. seams

1¹/₂"

Pitch of rivets

8"

Lap of plates or width of butt straps

16³/₄"

Per centages of strength of longitudinal joint

rivets 86.9

Working pressure of shell by

rules

202 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

7¹/₂ x 1¹/₂"

No. and Description of Furnaces in each

boiler

2 Deighton

Material

steel

Outside diameter

44¹/₂"

Length of plain part

top

✓

Thickness of plates

crown

19¹/₃₂"

bottom

Description of longitudinal joint

weld

No. of strengthening rings

Working pressure of furnace by the rules

210 lbs

plates: Material

steel

Thickness: Sides

23³/₃₂"

Back

23³/₃₂"

Top

23³/₃₂"

Bottom

15¹/₁₆"

Pitch of stays to ditto: Sides

10 x 9¹/₂"

Back

10 x 9¹/₂"

Top

10 x 9¹/₂"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

196 lbs

Material of stays

iron

area

smallest part

2.36

Area supported by each stay

9¹/₄"

Working pressure by rules

196 lbs

End plates in steam space: Material

steel

Thickness

1³/₈"

Pitch of stays

25 x 19"

How are stays secured

d. n. & w.

Working pressure by rules

182 lbs

Material of stays

steel

area

Diameter at smallest part

9.62"

Area supported by each stay

475"

Working pressure by rules

210 lbs

Material of Front plates at bottom

steel

Thickness

1"

Lower back plate

steel

Thickness

7¹/₈"

Greatest pitch of stays

14¹/₂ x 9¹/₂"

Working pressure of plate by rules

180.5 lbs

Diameter of tubes

3¹/₄"

Pitch of tubes

4¹/₂ x 4¹/₂"

Material of tube plates

steel

Thickness: Front

1"

Back

3¹/₄"

Mean pitch of stays

9 x 9"

Pitch across wide

water spaces

14¹/₂"

Working pressures by rules

183 lbs

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

9 x 1¹/₂"

Length as per rule

Working pressure by rules

182.5 lbs

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

✓

NORTH EASTERN MARINE ENGINEERING CO., LTD.

The foregoing is a correct description.

S. T. Harrison

Manufacturer.

Secretary

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

See Machinery Report

Is the approved plan of boiler forwarded herewith

✓

sister vessel to S. S. "Pancras"

Report No. 60417.

Total No. of visits

GENERAL REMARKS

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

This Auxiliary Boiler has been constructed under special survey, the materials used and the workmanship are both of good quality, it has been satisfactorily mounted and fitted on board, and the safety valves adjusted under steam.

Survey Fee

£

When applied for

19

Travelling Expenses (if any) £

When received

19

R. W. Coomber.

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

Committee's Minute

TUE. SEP. 19. 1911

Assigned

See Minute on S.W. Rpt

61026 attached

