

REPORT ON BOILERS.

No. 27021

Received at London Office

Date of writing Report

101

When handed in at Local Office

4.7.1917 Port of

Sunderland

No. in Survey held at

Sunderland

Date, First Survey

2 Oct. 1916 Last Survey

29 June 1917

Reg. Book.

on the donkey boiler of the new Keel S/S Aberdeen

(Number of Visits) 9

Gross 4372

Tons Net 2692

Master

Shepherd

Built at

Sunderland

By whom built

Sunderland S.B. Co. Ltd. (S.N. 292)

When built 1917

Engines made at

SUNDERLAND.

By whom made

North Eastern Mar. Eng. Co. Ltd.

When made

1917

Boilers made at

Sunderland

By whom made

Mac Gille & Pollock Ltd. (N. 659)

When made

1917

Registered Horse Power

Owners

Adam S. Co. Ltd.

Port belonging to

Aberdeen

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

John Spence & Sons Ltd.

Letter for record (S)

Total Heating Surface of Boilers 1315

Is forced draft fitted

no

No. and Description of

Boilers One single ended marine

Working Pressure 100

Tested by hydraulic pressure to 200

Date of test 27.2.17

No. of Certificate 3385

Can each boiler be worked separately

—

Area of fire grate in each boiler 37

No. and Description of

safety valves to each boiler 2 direct spring

Area of each valve 7.068

Pressure to which they are adjusted 100 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 18"

2 in

Mean dia. of boilers 12'-0"

Length 10'-6"

Material of shell plates Steel

Thickness 1/16"

Range of tensile strength 29-33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams S.R.

long. seams Lap T.R.

Diameter of rivet holes in long. seams 15/16"

Pitch of rivets 4 1/8"

Lap of plates or width of butt straps 6 3/4"

Per centages of strength of longitudinal joint

82.7

Working pressure of shell by

rules 104

Size of manhole in shell 16" x 12"

Size of compensating ring 26" x 28" x 1 1/2"

No. and Description of Furnaces in each

boiler 2 plain

Material Steel

Outside diameter 3'-8 1/2"

Length of plain part

top 47"

Thickness of plates

crown 5/8"

Description of longitudinal joint welded

No. of strengthening rings none

Working pressure of furnace by the rules 112

Combustion chamber

plates: Material Steel

Thickness: Sides 1 1/8"

Back 9/16"

Top 1 1/8"

Bottom 1 1/8"

Pitch of stays to ditto: Side 9 1/4" x 8 3/4"

Back 10 1/8" x 9 3/4"

Top 9" x 8 1/2"

If stays are fitted with nuts or riveted heads nuts in case only

Working pressure by rules 105

Material of stays Steel

area

smallest part 1'0 1/2"

Area supported by each stay 77.30"

Working pressure by rules 105

End plates in steam space: Material Steel

area

Pitch of stays 1 1/4" x 1 1/2"

How are stays secured DN

Working pressure by rules 105

Material of stays Steel

area

Diameter at smallest part 2.87"

Area supported by each stay 290 1/2"

Working pressure by rules 106

Material of Front plates at bottom Steel

Thickness 1/16"

Material of

Lower back plate Steel

Thickness 3/16"

Greatest pitch of stays 12 1/2" x 9 3/4"

Working pressure of plate by rules 118

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 7/8"

Material of tube plates Steel

Thickness: Front 1/16"

Back 5/8"

Mean pitch of stays 11 1/16"

Pitch across wide

water spaces 1 1/4" + 1/2" DP

Working pressures by rules 160

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 2 @ 6 1/4" x 7 1/4"

Length as per rule 29 13/16"

Distance apart 8 1/2"

Number and pitch of Stays in each 2 @ 9"

Working pressure by rules 109

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,

G.R. Pollock

Manufacturer.

Dates

During progress of

1916 Oct. 2 Nov. 28 Jan. 9 Feb. 22. 27

Is the approved plan of boiler forwarded herewith

Yes

while

During erection on

June 12. 19. 26.

Total No. of visits

9

building

board vessel

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

The materials and workmanship are good

The boiler has been constructed under special survey

Survey Fee

£ 2 : 2 :

When applied for,

9 JUL 1917

Travelling Expenses (if any) £

When received,

19/1/17 191

Sh. Davis. C. Cooper

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

FRI. 13 JUL. 1917

Committee's Minute

Assigned

