

Rpt. 5c.

## REPORT ON WATER TUBE BOILERS.

No. 47188

26. 10. 27

Received at London Office

Date of writing Report

191

When handed in at Local Office

22. 10. 1927

Port of

Glasgow

No. in  
Reg. Bk.

Survey held at

Glasgow

Date, First Survey

13. 12. 26

Last Survey

20. 10. 1927

on the

Messrs. Armstrong Whitworth's of 1019.

Number of Visits

31

Gross

Tons

Net

Master

Built at Newcastle

By whom built

T.S.S. "Beaverdale"

When built

Engines made at

Newcastle

By whom made

Parsons Marine Steam Turbine Co.

When made

Boilers made at

Glasgow

By whom made

Messrs. James &amp; Co. Ltd. (No. 1538)

When made

1924.

and diameter registered Horse Power

Owners Canadian Pacific Ry. Co.

Port belonging to

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland

Letter for Record

S

Date of Approval of plan

5.8.26

Number and Description or Type

Boilers

4 James

Working Pressure

280 lbs

Tested by Hydraulic Pressure to

425 lbs

Date of Test

5.4.27

No. of Certificate

11364

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers

4 WT

12,620 sq

19.4.27

Is forced draught fitted

Yes

Area of fire grate (coal) in each Boiler

80 sq

Total grate area of boilers in vessel including

Main and Auxiliary

435.5 sq

No. and type of burners (oil) in each boiler

408 sq

No. and description of safety valves on

each boiler

2 direct spring high lift

Area of each valve

408 sq

Pressure to which they are adjusted

250 lbs

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

18"

Height of Boiler

22'-10"

Width and Length

20'-0" 16'-6"

Steam Drums:—Number in each boiler

One

Inside diameter

50"

Material of plates

S

Thickness

2 1/2"

Range of Tensile Strength

28-35 tons

Are drum shell plates welded or flanged

No

Description of riveting:—

Pitch of Rivets

3 1/2"

Diameter of rivet holes in long. seams

3 1/2"

Pitch of Rivets

3 1/2"

Pitch of plate or width of butt straps

9"

Thickness of straps

9/16"

Percentage strength of long. joint:—Plate

75

Rivet

80%

Diameter of tube holes in drum

1 3/4" 1 1/4"

Pitch of tube holes

2 1/2" 3 1/2" 1 1/2"

Percentage strength of shell in way of tubes

48-1

Drum has a flat side state method of staying

Yes

Depth and thickness of girders at centre

Distance apart

280 lbs

Steam Drum Heads or Ends:—Material

S

Thickness

1 1/4"

Radius or how stayed

50"

Size of Manhole or Handhole

16" x 12"

Water Drums:—Number in each boiler

Three

Inside Diameter

23"

Material of plates

S

Thickness

5/8"

Range of tensile strength

28-35 tons

Are drum shell plates welded

Description of riveting:—Cir. seams

Double

long. seams

Double

Diameter of Rivet Holes in

Thickness of straps

9/16"

Pitch of tube holes

2 1/2" 3 1/2" 1 1/2"

Percentage strength of long. joint:—Plate

76.8

Rivet

73.5

Diameter of tube holes in drum

1 3/4" 1 1/4"

Pitch of tube holes

2 1/2" 3 1/2" 1 1/2"

Percentage strength of drum shell in way of tubes

40.

Water Drum Heads or Ends:—Material

S

Thickness

3/4"

Radius or how stayed

2 1/2"

Size of manhole or handhole

16" x 12"

Headers or Sections:—Number

Material

S

Thickness

5/8"

Tested by Hydraulic Pressure to

Material of Stays

Area at smallest part

Area supported by each stay

Working Pressure by Rules

Tubes:—Diameter

Percentage strength of Joint

Description of longitudinal joint

Diameter of Rivet Holes

Pitch of Rivets

Working Pressure of shell

How stayed

Rules

Crown or End Plates:—Material

Thickness

How stayed

SUPERHEATER

Type

Date of Approval of Plan

12.10.26

Tested by Hydraulic Pressure to

425 lbs

Date of Test

12.4.27

Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler

Yes

Pressure to which each is adjusted

Is easing gear fitted

Yes

Diameter of Safety Valve

Number, diameter, and thickness of tubes

153 2 1/2" 12 L 5.5.

Are Gear. Tubes

Gaskets or joints:—Manhole

Handhole

Handhole plates

Fitted on board &amp; tested under steam.

These four boilers are fitted with the Eirth Roe type of mechanical stokers S.F.S.

The foregoing is a correct description,

YARROW &amp; CO. LTD. Manufacturer.

During progress of

1926 Dec 13-23 (1927) Jan 12-19 Feb 3-10 18-24 Mar 27

Is the approved plan of boiler forwarded herewith

Yes

Total No. of visits

31

work in shops

18-31 Apr 5-12-19-22-29 May 11-17-26 Jun 1-7-17 July 5

During erection on

Aug 15-16-30 Sep 12 Oct 5-11-20

board vessel

GENERAL REMARKS

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

These Boilers have been built under

Special Survey and in accordance with the Rules. The Materials &amp; Workmanship are good. On

completion they have been tested by hydraulic pressure with satisfactory results.

Still invoice includes material worked into Messrs James No. 1537. now completed.

Survey Fee

£ 54 : 11.

When applied for

25/10/27

Travelling Expenses (if any)

£

When received

28.3.1927

Committee's Minute

GLASGOW 25 OCT 1927

Signed

TRANSMIT TO LONDON

W.M.

See Note

Lloyd's Register of Shipping.

TUES. 14 FEB 1928

Lloyd's Register

Foundation

W336-0021