

REPORT ON WATER TUBE BOILERS.

NEWCASTLE-ON-TYNE, No. 104096

No. 70255.

Received at London Office

3 DEC 1945

Date of writing Report

19

When handed in at Local Office

10 12 19 45

Port of Glasgow

No. in Survey held at

Renfrew

Date, First Survey

1. 11. 43

Last Survey 4. 11. 45

1945

g. Book.

(Number of Visits

51.)

Gross

Tons

Net

on the

Built at Newcastle-on-Tyne

By whom built. Swan Hunter & Co. Ltd.

Yard No. 1808

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

Renfrew

By whom made. Paton & Wilson Ltd.

Boiler No. 6/18/17

When made. 1945

Nominal Horse Power

Owners

Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Colville, Ltd.

Date of Approval of plan 15-5-44

Boilers 3 Main Type

Working Pressure 450 lb.

DRUMS

Tested by Hydraulic Pressure to 725 lb.

No. and Description or Type

Date of Test 27-8-45

Identification No. 56295

Can each boiler be worked separately

Total Heating Surface of Boilers 18,618 sq. ft.

Is forced draught fitted

Area of Fire Grate (coal) in each Boiler

No. and description of safety valves on

and type of burners (oil) in each boiler

In boiler

Area of each set of valves per boiler

Pressure to which they

adjusted

Are they fitted with easing gear

In case of donkey boilers state whether steam from main boilers can enter

donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

Height of boiler 20'-8"

Width and length 19'-4" x 19'-6"

Steam Drums:—Number in each boiler One

Inside diameter 3'-6"

Thickness of plates 1 5/8"

Range of tensile strength 28/32 tons

Are drum shell plates welded

flanged welded

If fusion welded, state name of welding firm Paton & Wilson, Ltd.

Have all the requirements of the Rules

Class I vessels been complied with Y10

Description of riveting:—Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

g. joint:—Plate

Rivet

Diameter of tube holes in drum 4"

Pitch of tube holes 7 1/4"

Percentage strength of shell in way of tubes 43.5

Steam Drum Heads or Ends:—Range of tensile strength 26/30 tons

Thickness of plates 1 1/2"

Radius or how stayed 3'-0"

Size of manhole or handhole 16" x 12"

Water Drums:—Number

each boiler none

Inside diameter

Thickness of plates

Range of tensile strength

Are drum shell plates

welded or flanged

If fusion welded, state name of welding firm

Have all the requirements of the Rules

Class I vessels been complied with

Description of riveting:—Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Pitch of tube holes

Percentage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Percentage strength of drum shell in way of tubes

Water Drum Heads or Ends:—Range of tensile strength

Thickness of plates

Radius or how stayed

Size of manhole or handhole

Headers or Sections:—Number 25

Material 25 S.D. Steel

Thickness 7/16"

Tested by hydraulic pressure to 725 lb.

Diameter 4" x 1 1/2"

Thickness 2 1/2"

Number 25, 196 & 329

MUDDRUM

Description of

Distance to shell

Inside diameter 6" x 6"

Thickness of shell plates 3/4"

Range of tensile

Length 28/32 tons

Description of longitudinal joint

If fusion welded, state name of welding

Have all the requirements for the Rules for Class I vessels been complied with

Diameter of rivet holes

Pitch of rivets

Thickness of straps

Percentage strength of long. joint

plate

rivet

Own or End Plates:—Range of tensile strength

Thickness

Radius or how stayed

PERHEATER, Drums or Headers:—Number in each boiler 2

Inside diameter 9 1/2"

Thickness 1 3/8"

Material S.D. Steel

Range of tensile strength 28/32 tons

Are drum shell plates welded

flanged

If fusion welded, state name of welding firm

Have all the requirements of the Rules

Class I vessels been complied with

Description of riveting:—Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

g. joint:—Plate

Rivet

Diameter of tube holes in drum 1 1/2"

Pitch of tube holes 5 1/4"

Percentage strength of drum shell in way of tubes 37.9

Drum Heads or Ends:—

Thickness

Range of tensile strength

Radius or how stayed

Size of manhole or handhole 3 5/8" square

Number, diameter, and thickness of tubes 84 @ 1 1/2" x 9 L59

Tested by hydraulic pressure to 725 lb.

Date of test 23-25-5-45

Is a safety valve fitted to each section of the superheater which

be shut off from the boiler

No. and description of safety valves

Area of each set

valves

Pressure to which they are adjusted

Is easing gear fitted

are Gear. Has the spare gear required by the Rules been supplied Y10

The foregoing is a correct description,

1/5 of each Superheater 960 #

3 x 960 = 2880 # total.

Manufacturer.

Dates

During progress of work in shops 1943 Nov 1, 2, 1944 Jan 20, Apr 12, Apr 15, Nov 13, Dec 1, 8, 11, 18, 20, 22, 24, 28, 29.

Survey

while During erection on board vessel 1945 Jan 24, 25, 26, 27, 28, 29, Feb 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Mar 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Apr 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, May 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Jun 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Jul 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Aug 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Sep 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, Oct 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 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