

REPORT ON BOILERS.

No. 29724

Received at London Office

8 MAY 1928

Date of writing Report

192

When handed in at Local Office

7 MAY 1928

Port of SUNDERLAND

No. in Survey held at SUNDERLAND

Date, First Survey Apr 13

Last Survey May 1 1928

on the 1/2" Benrimmes

(Number of Visits 10)
Tons { Gross 4798
Net 3071

Master Built at Sunderland By whom built Bartlam & Sons Ltd Yard No. When built 1914.7

Engines made at Sunderland By whom made No Eastern Marine Eng & Ltd Engine No. When made 1914

Boilers made at do By whom made do Boiler No. When made 1914

Nominal Horse Power 435 Owners W. Thomson & Co Port belonging to Leith

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record)

Total Heating Surface of Boilers Is forced draught fitted Coal or Oil fired

and Description of Boilers Working Pressure

tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler

Area of each set of valves per boiler { per Rule as fitted Pressure to which they are adjusted Are they fitted with easing gear

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 Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams { end inter.

Long. seams Diameter of rivet holes in { circ. seams long. seams Pitch of rivets {

Percentage of strength of circ. end seams { plate rivets Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate rivets combined Working pressure of shell by Rules

Thickness of butt straps { outer inner No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top bottom Thickness of plates { crown bottom Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

End plates: Material { front back Tensile strength Thickness

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front back

Orders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

centre Length as per Rule Distance apart No. and pitch of stays

each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness Lower back plate: Material Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main stays: Material Tensile strength

Diameter { At body of stay, or Over threads No. of threads per inch Area supported by each stay

Working pressure by Rules Screw stays: Material Tensile strength

Diameter { At turned off part, or Over threads No. of threads per inch Area supported by each stay

Working pressure by Rules Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part, or Over threads.

No. of threads per inch Area supported by each stay Working pressure by Rules

Tubes: Material External diameter { Plain Stay Thickness { No. of threads per inch

Pitch of tubes Working pressure by Rules Manhole compensation: Size of opening in shell plate

Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater N. E. Marine Smith type Manufacturers of Tubes Messrs. Tubes Ltd. Steel castings Leyland Motors Ltd.

Number of elements 43 (in each boiler) Material of tubes Solid Drawn Steel Internal diameter and thickness of tubes 15 M.M. & 2 1/2 M.M.

Material of headers Mild Steel Tensile strength 26 to 30 tons Thickness 1 1/8 (MIN) Can the superheater be shut off and the boiler be worked separately Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes

Area of each safety valve 3.1416 sq. in. Are the safety valves fitted with easing gear Yes Working pressure as per Rules 190 lbs. Pressure to which the safety valves are adjusted 195 lbs. Hydraulic test pressure: tubes 1500 lbs. (at maker's work) Castings 570 lbs. (at maker's work) and after assembly in place 400 lbs. Are drain cocks or valves fitted to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with

The foregoing is a correct description,

Manufacturer.

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

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

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

Survey Fee ... £ Please see Rpt. 19 When applied for, 192

Travelling Expenses (if any) £ When received, 192

A. I. Griffith.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 15 MAY 1928

Assigned See other report same number



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