

REPORT ON BOILERS.

No. 95121

Received at London Office

JUN 10 1937

Fitting Report

19

When handed in at Local Office

9/6/37 Port of

NEWCASTLE-ON-TYNE

Survey held at

Wallsend

Date, First Survey

18 April

Last Survey

31 May 1937

on the

Replace boilers for H. Thode & Agelund

(Number of Visits 12.)

Tons

Gross 5454
Net 3604

Built at

Sunderland

By whom built

Sir James Laing & Sons Ltd

Yard No.

When built 1920

made at

Newcastle

By whom made

Palmers Co. Ltd.

Engine No.

When made 1920

made at

Wallsend

By whom made

North Eastern Marine Eng Co. Ltd

Boiler No. 2891

When made 1937

Horse Power

Owners

Wilk Wilhelmssen

Port belonging to

Tonsberg

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland

(Letter for Record S)

Heating Surface of Boilers

7668 ft²

Is forced draught fitted

yes

Coal or Oil fired Oil fired

Description of Boilers

Three single ended multitubular

Working Pressure

185 lbs

by hydraulic pressure to

328 lbs

Date of test

31-5-37

No. of Certificate

718

Can each boiler be worked separately

yes

Firegrate in each Boiler

63.3 ft²

No. and Description of safety valves to each boiler

See Nwe Rpt - No 43501

of each set of valves per boiler

per Rule

See Nwe Rpt - No 43501

Pressure to which they are adjusted

185 lbs

are they fitted with easing gear

yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

at distance between boilers or uptakes and bunkers or woodwork

See Nwe Rpt - No 279164

oil fuel carried in the double bottom under boilers

yes

at distance between shell of boiler and tank top plating

22"

Is the bottom of the boiler insulated

yes

at internal dia. of boilers

15'-6"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

L.D.R.

Diameter of rivet holes in

circ. seams

1 5/16"

long. seams

1 3/16"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

65

rivets

45.2

Percentage of strength of circ. intermediate seam

plate

—

rivets

Percentage of strength of longitudinal joint

plate

85.6

rivets

87.0

combined

88.6

Working pressure of shell by Rules

186.8

No. and Description of Furnaces in each Boiler

Three Brighton

Tensile strength

26-30 tons

Smallest outside diameter

47 1/2"

Thickness of plates

5/8"

Description of longitudinal joint

weld

Working pressure of furnace by Rules

192 lbs

plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/32"

Pitch of stays

21 3/4" x 21"

are stays secured

Double nuts

Working pressure by Rules

185 lbs

plates: Material

Steel

Tensile strength

26-30 tons

Thickness

29/32"

pitch of stay tubes in nests

9.87"

Pitch across wide water spaces

14 1/2"

Working pressure

front 208 lbs
back 218 lbs

plates to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

Length as per Rule

36"

Distance apart

9"

No. and pitch of stays

Working pressure by Rules

225 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

3/4"

Back

23/32"

Top

3/4"

Bottom

3/4"

of stays to ditto: Sides

10 7/8" x 9"

Back

9 7/8" x 9 7/16"

Top

10 7/8" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

194 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

of stays at wide water space

14 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

210 lbs

Main stays: Material

Steel

Tensile strength

28-32 tons

At body of stay,

3 1/4"

No. of threads per inch

6

Area supported by each stay

456.7 sq. in.

Over threads

Screw stays: Material

Steel

Tensile strength

26-30 tons

Working pressure by Rules

203 lbs

No. of threads per inch

9

Area supported by each stay

97.875 sq. in.

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

97.875 sq. in.

Over threads

W222-0071

Working pressure by Rules 185 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 7/8" Working pressure by Rules 185 1/4 lbs

No. of threads per inch 9 Area supported by each stay 115 sq in

Tubes: Material Iron External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 5/16 + 1/4" No. of threads per inch 9

Pitch of tubes 11 1/4" x 7 3/4" Working pressure by Rules 193 lbs Manhole compensation: Size of

END shell plate 16" x 12" Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged 4" 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 di

stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes

of rivets in outer row in dome connection to shell

Type of Superheater

Number of elements Material of tubes Manufacturers of { Tubes Steel castings Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut

the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure

Rules Pressure to which the safety valves are adjusted Hydraulic test

tubes, castings and after assembly in place Are drain cocks or valves

to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

The foregoing is a correct description,
For THE NORTH EASTERN MARINE ENGINEERING CO LTD
John Neill

Dates of Survey { During progress of work in shops - 1937 Apr 1. 8. 13. 14. 19. 23. 26 May 4. 10. 14. 25. 31. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

building { During erection on board vessel - July 23. 26. 27. 28. Aug 5. 13. 16. 20 Total No. of visits 12 8 visits on board

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built Special Survey, in accordance with the Rules and approved plan: the materials and workmanship are good. On completion they were tested by water pressure to 328 lbs per square inch and found tight and satisfactory at that pressure. These boilers have been securely fitted on board, in accordance with the Rules. The original safety valves have been fitted, & adjusted under steam to 185 lbs, & found satisfactory. Thickness of adjusting washers.

Port	Centre	Starboard
Port 13/32	Port 7/16	Port 1/2
Starboard 15/32	Starboard 7/16	Starboard 15/32

Survey Fee ... £ 44 : 9 : 0 When applied for, 9 JUN 1937

Travelling Expenses (if any) £ : : When received, 16. 6. 37

J. Seller & R. J. Easton
Engineer Surveyors to Lloyd's Register of Shipping

Committee's Minute TUE 28 SEP 1937

Assigned See No 95396