

Rpt. 5a.

REPORT ON BOILERS.

Std. No. 30504
Hull No. 16954

Received at London Office 10 SEP 1930

Date of writing Report

19

When handed in at Local Office

S. 9. 10. 30

Port of

Hull Newcastle

Std 17 Nov. 1930

No. in
Reg. Book.

Survey held at

Hartlepool

Date, First Survey

2. 6. 30

Last Survey

16. 7. 1930

on the

M.V. "THORSHAVN"

(Number of Vistas 14)

Gross 6749

Net 4045

Master

Built at

Sunderland

By whom built

Sir J. Laing & Sons Ltd.

Yard No. 710

When built 1930

Engines made at

Sunderland

By whom made

Wm Doxford & Sons Ltd.

Engine No. 178

When made 1930

Boilers made at

Hartlepool

By whom made

Richardsons Westgarth & Co.

Boiler No. D209

When made 1930

Nominal Horse Power

116

Owners

Bygde, Dahl, Hvalengensdalskap

Port belonging to

Sandefjord

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR, DONKEY, & WASTE HEAT.

Manufacturers of Steel

Steel Company of Scotland Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

1745 sq. ft.

Is forced draught fitted

yes

Coal or Oil fired

Wing fur. Oil

No. and Description of Boilers

One single ended.

Working Pressure

150 lb. gas.

Tested by hydraulic pressure to

275 lb.

Date of test

16. 7. 30

No. of Certificate

3786

Can each boiler be worked separately

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2 Marine type.

Area of each set of valves per boiler

per Rule 15.85

as fitted

14.14. Approved 26. 6. 30

Pressure to which they are adjusted

155 lb.

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

3'-0"

Is oil fuel carried in the double bottom under boilers

Fitted with deck

Smallest distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

✓

Largest internal dia. of boilers

11'-4 5/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

27/32

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D R Lap

long. seams

D R D B S.

Diameter of rivet holes in

circ. seams

1 1/2"

long. seams

1 3/2"

Pitch of rivets

3 1/2"

5 1/16" 1 row. 2 3/2" 1 row

Percentage of strength of circ. end seams

plate

68.2

rivets

49.9

Percentage of strength of circ. intermediate seam

plate

81.8

rivets

Percentage of strength of longitudinal joint

plate

80.6

combined

90.6

Working pressure of shell by Rules

150 lb.

Thickness of butt straps

outer 4"

inner 13"

No. and Description of Furnaces in each Boiler

3. 2 Wing furnaces 1 Centre plain

Material

Steel

Tensile strength

26/30

Smallest outside diameter

Cor. 31 1/2" plain 24"

Length of plain part

top 100"

bottom

Thickness of plates

cor. 3/8"

plain 1/2"

Description of longitudinal joint

welded.

Dimensions of stiffening rings on furnace or c.c. bottom

✓

Working pressure of furnace by Rules

Cor. 160 plain 157

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1"

Pitch of stays

19 1/2" x 14"

How are stays secured

Double nuts.

Working pressure by Rules

158 lb.

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30

Thickness

3/32"

11/16"

Mean pitch of stay tubes in nests

Wings 9 1/8" x 10 1/8"

Cent. 8 3/8" x 12"

Pitch across wide water spaces

13 1/4" x 9 3/4"

Working pressure

front 153 lb.

back 157 lb.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

Wings 7 1/4" x 1 3/8"

Cent. 7 3/4" x 1 3/8"

Length as per Rule

27 3/8"

Distance apart

W. 9" C 10 1/2"

No. and pitch of stays

in each

3

6 3/4"

Working pressure by Rules

W. 160 C. 178

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

19/32"

Back

23/32"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

9" x 8 3/4"

Back

8 1/2" x 8"

Top

6 3/4" x 10 1/2"

Are stays fitted with nuts or riveted over

Back riveted

Working pressure by Rules

154 lb.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

25/32"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

3/4"

Pitch of stays at wide water space

13 3/8" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

176 lb.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay, or Over threads

2 1/2" x 2 3/8"

No. of threads per inch

6

Area supported by each stay

21 1/2" x 13" x 16 1/2" x 14"

Working pressure by Rules

158 x 170 lb.

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part, or Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

8 3/4" x 9"

Working pressure by Rules 159lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 1/8" Over threads 1 1/8" /

No. of threads per inch 9 Area supported by each stay 11 5/16" x 8 1/2" Working pressure by Rules 157lbs /

Tubes: Material Iron External diameter { Plain 2 1/2" Wings 2" Centre 2" Stay 2" Thickness { 8" 11" 14" 17" 20" 24" 28" 32" No. of threads per inch 9

Pitch of tubes 3 5/8" x 3 9/16" W. 3" x 2 5/8" C Working pressure by Rules 155 Plain 187 Stay Manhole compensation: Size of opening in shell plate 12" x 16" Section of compensating ring 11 1/16" x 7" No. of rivets and diameter of rivet holes 28 1 1/2" /

Outer row rivet pitch at ends 5 1/16" Depth of flange if manhole flanged ✓ Steam Dome: Material none

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 none Manufacturers of { Tubes Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and 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 as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

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

The foregoing is a correct description,

For RICHARDSON'S, WESTSARUM & CO. LIMITED. Manufacturer.

Dates of Survey { During progress of work in shops - - - 1930 June 2-5-12-16-18-20-21-25-27-28 July 3-7 Are the approved plans of boiler and superheater forwarded herewith forwarded and while building { During erection on board vessel - - - 14-16 (If not state date of approval)

Total No. of visits 14

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Surf Lavington No 109, 16939

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

This boiler has been built under Special Survey. The materials and workmanship are good and efficient. The mountings have been examined and tested. It has been despatched to Sunderland for fitting on board. This boiler has been satisfactorily fitted in the vessel, the safety valves adjusted under them. For notation see machinery report.

Survey Fee ... £ 11 : 12 : 5 When applied for, 9-9-1930

Travelling Expenses (if any) £ : : When received, 29-9-1930

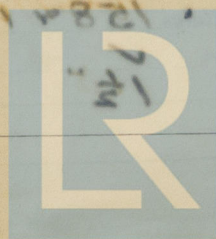
R.D. Shilstone & P. Macintosh Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 25 NOV 1930

Assigned

See Old No 30504



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