

REPORT ON BOILERS.

No. 32546

Received at London Office DEC 23 1938

Date of writing Report

192

When handed in at Local Office

21 DEC 1938

Port of

SUNDERLAND.

No. in
Reg. Book.

Survey held at

Sunderland

Date, First Survey

Last Survey

Dec 12 1938

on the

8/3 FULHAM IV

(Number of Visits

Gross

Tons

Net

Master

Built at

Burntisland

By whom built

Burntisland S.B. Co. Ltd. No. 225

When built 1938

Engines made at

Sunderland

By whom made

H.E. Marine Eng. Co. (1938) Ltd.

Engine No. 2928

When made 1938

Boilers made at

do.

By whom made

do.

Boiler No. do.

When made do.

Nominal Horse Power

196

Owners

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland

(Letter for Record

Y)

Total Heating Surface of Boilers

2952 sq ft

Is forced draught fitted

yes

Coal or Oil fired

coal

No. and Description of Boilers

one cylindrical multitubular

Working Pressure 200 lb.

Tested by hydraulic pressure to

350 lb.

Date of test 27/9/38

No. of Certificate 4284

Can each boiler be worked separately

Area of Firegrate in each Boiler

65 sq ft

No. and Description of safety valves to each boiler

2. Direct Spring

Area of each set of valves per boiler

per Rule 17.44 sq in

as fitted 19.24 sq in

Pressure to which they are adjusted 200 lb.

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

2'-0"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

1'-6"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

16'-6 1/8"

Length

11'-0"

Shell plates: Material

Steel

Tensile strength 29/32 tons/sq in

Thickness

1 7/16"

Are the shell plates welded or flanged

—

Description of riveting: circ. seams

end D.R.L.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 5/32"

long. seams

1 5/32"

Pitch of rivets

4 3/8"

10 1/8"

Percentage of strength of circ. end seams

plate

66.4

rivets

42.77

Percentage of strength of circ. intermediate seam

plate

—

rivets

—

Percentage of strength of longitudinal joint

plate

85.49

rivets

86.53

combined

88.29

Working pressure of shell by Rules

200.2 lb.

Thickness of butt straps

outer

1 3/32"

inner

1 7/32"

No. and Description of Furnaces in each Boiler

3. Slighten. Slip. Jockey rocks

Material

Steel

Tensile strength 26/30 tons/sq in

Smallest outside diameter

3'-11 9/16"

Length of plain part

top

—

bottom

—

Thickness of plates

crown

2 1/32"

bottom

—

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

201.8 lb.

End plates in steam space: Material

Steel

Tensile strength 26/30 tons/sq in

Thickness

1 5/32"

Pitch of stays 23 1/4" x 21 1/2"

How are stays secured

double nuts

Working pressure by Rules

202 lb.

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26/30 tons/sq in

Thickness

29/32"

13/16"

Mean pitch of stay tubes in nests

10.32"

Pitch across wide water spaces

14" x 8 1/2"

Working pressure

front

218 lb.

back

223 lb.

Girders to combustion chamber tops: Material

Steel

Tensile strength 28/32 tons/sq in

Depth and thickness of girder

at centre

10, 17/8"

Length as per Rule

34.4"

Distance apart

12"

No. and pitch of stays

in each

3, 8 1/4"

Working pressure by Rules

205 lb.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons/sq in

Thickness: Sides

13/16"

Back

25/32"

Top

13/16"

Bottom

1"

Pitch of stays to ditto: Sides

10 7/8" x 10 1/2"

Back

10 3/4" x 9 3/4"

Top

12" x 8 1/4"

Are stays fitted with nuts or riveted over

nuts fitted

Working pressure by Rules

204 lb.

Front plate at bottom: Material

Steel

Tensile strength 26/30 tons/sq in

Thickness

29/32"

Lower back plate: Material

Steel

Tensile strength 26/30 tons/sq in

Thickness

29/32"

Pitch of stays at wide water space

14 3/4" x 9 3/4"

Are stays fitted with nuts or riveted over

nuts fitted

Working Pressure

230 lb.

Main stays: Material

Steel

Tensile strength 28/32 tons/sq in

Diameter

At body of stay,

3 3/8"

or

Over threads

3 3/4"

No. of threads per inch

6

Area supported by each stay 23 1/4" x 21 1/2" 31/12/38

Working pressure by Rules

200 lb.

Screw stays: Material

Treated W.I.

Tensile strength 21 1/2 tons/sq in

Diameter

At turned off part,

1 7/8"

or

Over threads

No. of threads per inch

9

Area supported by each stay 10 3/4" x 9 3/4"

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

This boiler has been constructed under special survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good. For recommendations please see Rpt. 4.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See F.E. machy rpt

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Lloyd's Register
Foundation

(The two copies are deposited now so as to leave one below the space for Committee's Minute.)