

REPORT ON BOILERS.

No. 87000

[9 APR 1931]

Date of writing Report

192

When handed in at Local Office

Received at London Office

No. in
Reg. Book.

Survey held at

Walker

2/4/1931

Port of Newcastle-on-Tyne.

Date, First Survey

30 Jan

Last Survey

30. 3.

1931

on the

Two marine boilers for the S. S. "Jugoslavija"

(Number of Visits

17.)

Tons

Gross

Net

Master

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

Walker

By whom made

Luan Hunter, W R & Co

Boiler No. 1412

When made 1931

Nominal Horse Power

Owners

Gadanska Flotilla D.D. Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Co of Scotland

(Letter for Record \$)

Total Heating Surface of Boilers

4440 sq ft

Is forced draught fitted

Coal or Oil fired Coal

No. and Description of Boilers

Two cylindrical marine

Working Pressure 200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test 12/13/31

No. of Certificate 523/4

Can each boiler be worked separately Yes

Area of Firegrate in each Boiler

54.5 sq ft

No. and Description of safety valves to each boiler

1 pair spring loaded I.H.L. type.

Area of each set of valves per boiler

per Rule

as fitted

4.66 sq ft

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 Yes

Largest internal dia. of boilers

14'-0 9/16"

Length

11'-6"

Shell plates: Material

\$

Tensile strength 30/34 T.

Thickness

1 7/32"

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

end

D. R. exp.

Long. seams

T. R. D. B. S.

Diameter of rivet holes in

circ. seams

1 3/8"

long. seams

1 1/4"

Pitch of rivets

4' 3 3/4"

Percentage of strength of circ. end seams

plate

68.53

rivets

43.44

Percentage of strength of circ. intermediate seam

plate

-

Percentage of strength of longitudinal joint

plate

85.294

rivets

85.145

Working pressure of shell by Rules

204 lbs

Thickness of butt straps

outer

15/16"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

3 Deighton 3 CF

Material

S.

Tensile strength

26/30 T

Smallest outside diameter

40 3/4"

Length of plain part

top

-

bottom

Thickness of plates

crown

9/16"

bottom

Description of longitudinal joint

Weld

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

None

Working pressure of furnace by Rules

200 lbs

End plates in steam space: Material

S

Tensile strength

26/30 T

Thickness

13/16"

Pitch of stays 18" x 18"

How are stays secured

D. nuts

Working pressure by Rules

202 lbs

Tube plates: Material

front

Steel

back

Tensile strength

26/30 T

Thickness

31/32"

Lean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

13 3/4" x 33/4"

Working pressure

front

237 lbs

back

209 lbs

Girders to combustion chamber tops: Material

S

Tensile strength

28/32 T

Depth and thickness of girder

Centre

9 1/4" x 1 1/4"

Length as per Rule

32 19/32"

Distance apart

8 1/2"

No. and pitch of stays

Each

2 @ 10"

Working pressure by Rules

203 lbs

Combustion chamber plates: Material

S

Tensile strength

26/30 T

Thickness: Sides

23/32"

Back

1 1/16"

Top

23/32"

Bottom

1"

Pitch of stays to ditto: Sides

10" x 8"

Back

8 3/4" x 8 3/4"

Top

10" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

209 lbs

Front plate at bottom: Material

S

Tensile strength

26/30 T

Thickness

31/32"

Lower back plate: Material

S

Tensile strength

26/30 T

Thickness

15/16"

Pitch of stays at wide water space

16 7/8" x 4 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

209 lbs

Main stays: Material

S

Tensile strength

28/32 T

Diameter

At body of stay,

3"

Over threads

No. of threads per inch

6

Area supported by each stay

32 1/4"

Working pressure by Rules

203 lbs

Screw stays: Material

S

Tensile strength

26/30 T

Diameter

At turned off part,

1 5/8" x 1 3/4"

Over threads

No. of threads per inch

9

Area supported by each stay

68.93 sq ft

Pitch of stays at wide water space

16 7/8" x 4 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

209 lbs

Main stays: Material

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28/32 T

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Working pressure by Rules

203 lbs

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S

Tensile strength

26/30 T

Working pressure by Rules 218 lb. Are the stays drilled at the outer ends 90 Margin stays: Diameter { At turned off part, or Over threads 1 1/8" Working pressure by Rules 208 lb. No. of threads per inch 9 Area supported by each stay 1025" Tubes: Material 9mm External diameter { Plain 2 1/2" Thickness { 9 mm 5/16" No. of threads per inch 9 Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 208 lb. Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 10 1/2" x 1 7/32" No. of rivets and diameter of rivet holes 32 @ 1 1/2" Outer row rivet pitch at ends 10 1/4" Depth of flange if manhole flanged - Steam Dome: Material 9mm. 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 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

The foregoing is a correct description,
G. F. Huxley Manufacturer.

Dates { During progress of work in shops - - - 1930 Jan 30. Feb. 11. 16. 23. 24. 26. 27. Mar. 3. 9. 10. 11. 12. 13. 18. 20. 25. 30. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes. while building { During erection on board vessel - - - Total No. of visits 17.

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

These boilers have been built under special survey in accordance with the approved plans, the Rules of the Society. The workmanship & materials are of good quality throughout. The boilers have been shipped to be fitted on board the vessel.

It is stated that these boilers which have been built to the order of the Jadranska Plovidba D. D. to be fitted into a vessel named "JUGOSLAVIJA" which was built in 1914.

Survey Fee £27. 6. 0. When applied for, 192
Traveling Expenses (if any) £24. 10. - When received, 13. 4. 192

Eng. A. Ferguson.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Fri. 24 FEB 1931

Assigned Sec. F. E. Rpt.