

5a.

## REPORT ON BOILERS.

No. 14246

Received at London Office 24 FEB 1931

Writing Report 23/2

192/

When handed in at Local Office

23/2

193/

Port of

SOUTHAMPTON

Survey held at

Cowes

Date, First Survey

1 Sept 1930

Last Survey

192

(Number of Visits)

Gross 330

Tons

Net

on the

std. m.

BAKAR

Built at E. Cowes

By whom built

J. S. White &amp; Co. Ltd.

Yard No. 1704

When built 1931

es made at

Cowes

By whom made

J. S. White &amp; Co. Ltd.

Engine No. 1704

When made 1931

es made at

Cowes

By whom made

J. S. White &amp; Co. Ltd.

Boiler No. 1704

When made 1931

nal Horse Power

111

Owners

Jadranka Plavidla d. d.

Port belonging to

Susak

## LITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

David Colville Ltd

(Letter for Record 5)

Heating Surface of Boilers

1723 sq. ft.

Is forced draught fitted

yes

Coal or Oil fired

and Description of Boilers

one cylindrical return tube 15B

Working Pressure 200 lbs/sq. in.

ed by hydraulic pressure to

350 lbs/sq. in.

Date of test

9/1/31

No. of Certificate

4

Can each boiler be worked separately

of Firegrate in each Boiler

53 sq. ft.

No. and Description of safety valves to each boiler

one 2 1/4" dia. double spring, improved high lift

of each set of valves per boiler

per Rule 10.01 sq. in.

Pressure to which they are adjusted

Are they fitted with easing gear yes

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

least distance between boilers or uptakes and bunkers or woodwork

6 1/2" (outside lagging) Is oil fuel carried in the double bottom under boilers

least distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated no

greatest internal dia. of boilers

13'-1 1/2"

Length

10'-6"

Shell plates: Material

steel

Tensile strength 28/32 tons/sq. in.

thickness

1 3/8"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end D.R.L.

seams

T.R.D.B.

Diameter of rivet holes in

circ. seams 1 1/4"

long. seams 1 1/4"

Pitch of rivets

3.4/5"

percentage of strength of circ. end seams

plate 63.4

rivets 49.2

Percentage of strength of circ. intermediate seam

plate

percentage of strength of longitudinal joint

plate 85.5

rivets 90

combined 89.2

Working pressure of shell by Rules 201 lbs/sq. in.

thickness of butt straps

outer 15/16"

inner 1 1/16"

No. and Description of Furnaces in each Boiler

3 Morrison, 3 Cf.

Material

steel

Tensile strength

26/30 tons/sq. in.

Smallest outside diameter

3'-3 1/4"

length of plain part

top

bottom

Thickness of plates

crown 9/16"

bottom 9/16"

Description of longitudinal joint

Weld

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

Working pressure of furnace by Rules

appd.

plates in steam space: Material

steel

Tensile strength

26/30

Thickness

1 1/8"

Pitch of stays 19" x 1 1/2"

are stays secured

in washers 10 1/2" x 1 1/8" in internal washers: double nuts

Working pressure by Rules

appd.

be plates: Material

front steel

back

Tensile strength

26/30

Thickness

27/32"

an pitch of stay tubes in nests

8.94"

Pitch across wide water spaces

13 1/8"

Working pressure

front

back

orders to combustion chamber tops: Material

steel

Tensile strength

28/32

Depth and thickness of girder

centre

9 1/2" x 1 1/2"

Length as per Rule

2'-8 1/2"

Distance apart

9 1/2"

No. and pitch of stays

each

2 x 8 3/4"

Working pressure by Rules

appd.

Combustion chamber plates: Material

steel

nsile strength

26/30

Thickness: Sides

21/32"

Back

21/32"

Top

23/32"

Bottom

3/4"

tch of stays to ditto: Sides

8 1/2" x 8 1/4"

Back

8 1/2" x 8 1/8"

Top

8 3/4" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts fitted

orking pressure by Rules

appd.

Front plate at bottom: Material

steel

Tensile strength

26/30

ickness

1"

Lower back plate: Material

steel

Tensile strength

26/30

Thickness

15/16"

tch of stays at wide water space

1'-1 1/2" x 8 1/8"

Are stays fitted with nuts or riveted over

nuts fitted

orking Pressure

appd.

Main stays: Material

steel

Tensile strength

28/32

iameter

At body of stay,

3"

Over threads

No. of threads per inch

6

Area supported by each stay

appd.

orking pressure by Rules

appd.

Screw stays: Material

steel

Tensile strength

26/30

iameter

At turned off part,

1 5/8"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

8 1/2" x 8 1/4"

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Working pressure by Rules *appd* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, *1 3/4"* or Over threads *1 3/4"*

No. of threads per inch *9"* Area supported by each stay *11" x 8 1/8"* Working pressure by Rules *appd*

Tubes: Material *L.H.W.I.* External diameter { Plain *2 1/2"* Stay *2 1/2"* Thickness { *9 L.S.G.* *7/16"* No. of threads per inch *9*

Pitch of tubes *3 5/8" x 3 1/2"* Working pressure by Rules *appd* Manhole compensation: Size of opening in shell plate *17 1/4" x 21 1/4"* Section of compensating ring *9 1/8" x 1 7/32"* No. of rivets and diameter of rivet holes *36, 1 3/8"*

Outer row rivet pitch at ends *8 3/4"* Depth of flange if manhole flanged *3 9/16"* 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 23 inclusive for boilers been complied with *yes*

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - *Sept 1, 12, Oct 13, Nov 5, Dec 2, 12, 1930* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *yes*

while building { During erection on board vessel - *Jan 1, 29* 1931 Total No. of visits

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

*This boiler has been constructed under special survey in accordance with the approved plan. It has been tested in accordance with the requirements of the Rules and found sound and tight. The workmanship and materials are good and the boiler is eligible, in my opinion, to be fitted on board a classed vessel.*

*The S.V.s remain to be adjusted and tested under steam in accordance with the requirements of Sect. 21 clause 6 of the Rules.*

Survey Fee ... .. £ : : When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

*L. D. Home*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **WED. 8 APR 1931**

Assigned

*See F. B. Rpt.*



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