

REPORT ON BOILERS.

No. 34656

Received at London Office

5 - APR 1947

State of writing Report

19

When handed in at Local Office

APR - 2 1947

Port of

Sunderland.

No. in Survey held at

Sunderland.

Date, First Survey

4 Nov. 46

Last Survey

11 March 1947

33166 on the

"GAUTHIO" SVEABORG.

See Memo. 23-5-47

(Number of Visits 22)

Gross

Net

built at

Malmo

By whom built

Hockums M.V. Aktieb

Yard No.

When built

1944-4

engines made at

By whom made

Engine No.

When made

boilers made at

Sunderland

By whom made

G. Clark (1938) Ltd

Boiler No.

1436

When made

1944

nominal Horse Power

Owners

Stockholms Red. Svesa.

Port belonging to

Stockholm.

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colville Ltd

(Letter for Record

S.

Total Heating Surface of Boilers

1289 sq

Is forced draught fitted

no.

Coal or Oil fired

No. and Description of Boilers

One Single Ended multitubular return tube marine

Working Pressure

14 1/2 lbs.

Tested by hydraulic pressure to

305 lbs

Date of test

4/3/44

No. of Certificate

4660

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per Rule as fitted

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

Largest internal dia. of boilers

11'-1 1/8"

Length

11'-1 1/8"

Shell plates: Material

Steel

Tensile strength

30/35

Thickness

54/64"

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end

37/64"

Long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 1/32"

Pitch of rivets

INNER ROWS 3 5/32"

OUTER ROWS 6 5/16"

Percentage of strength of circ. end seams

plate

68.6

rivets

44.6

Percentage of strength of circ. intermediate seam

plate

81.08

rivets

108.0

Percentage of strength of longitudinal joint

plate

81.08

rivets

108.0

combined

89.4

Thickness of butt straps

outer

3/4"

inner

7/8"

No. and Description of Furnaces in each Boiler

Two corrugated ("Morrison")

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-6 3/8"

Length of plain part

top

bottom

Thickness of plates

crown

33/64"

Description of longitudinal joint

Welded.

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

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays

16" x 13 3/4"

How are stays secured

Electrically welded to washed 10" dia x 13/16" thick which are welded to end plates.

Tube plates: Material

front

Steel

back

Tensile strength

26/30

Thickness

24/32"

Lean pitch of stay tubes in nests

10 1/2" x 4 1/4"

Pitch across wide water spaces

13" x 4"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

4 1/8" x 23/32" (2)

Length as per Rule

2'-4 1/8"

Distance apart

8 1/4"

No. and pitch of stays

in each

2 @ 9"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

23/32"

Back

23/32"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

9" x 4 1/2"

Back

8" x 8 1/2"

Top

8 1/4" x 9"

Are stays fitted with nuts or riveted over

Remainder riveted at both ends

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays at wide water space

13" x 8 1/2"

Are stays fitted with nuts or riveted over

marginal nutted. Remainder riveted

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

2 3/8"

No. of threads per inch

(Welded to end plates)

crew stays: Material

Steel

Tensile strength

26/30

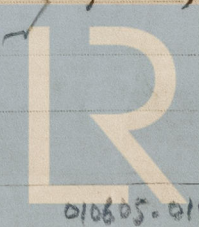
Diameter

At turned off part,

1 1/2"

No. of threads per inch

9



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Are the stays drilled at the outer ends

no.

Margin stays: Diameter

At turned off part or Over threads 1 5/8", 1 3/4" Corn

No. of threads per inch 9.

Tubes: Material S.D. Steel

External diameter

Plain 2 1/2" Stay 2 1/2"

Thickness

10 kg. 5/16"

No. of threads per inch 9.

Pitch of tubes 3 1/2" x 3 7/8"

Manhole compensation: Size of opening

shell plate 20" x 16"

Section of compensating ring

4 1/2" x 1"

No. of rivets and diameter of rivet holes

44 @ 1 1/2"

Outer row rivet pitch at ends

4 1/2"

Depth of flange if manhole flanged

3 1/4"

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

Thickness of crown

No. and diameter

stays

Inner radius of crown

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 forgings

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

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

Pressure to which the safety valves are adjusted

Hydraulic test pressure

tubes

forgings and castings

and after assembly in place

Are drain cocks

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,

GEORGE CLARK (1938) LTD.

A. J. Schuffe

Manufacture

Dates

During progress of

Survey

work in shops

while

During erection on

building

board vessel

4/1 Jan 2, 4, 10, 12, 27

7/1 Jan 29, 14

Are the approved plans of boiler and superheater forwarded herewith

(If not state date of approval.)

21, 24, 25, 11, 17, 24, 25, 27, 28, 29, 30, 31

17, 24, 27, 11

Total No. of visits 22

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.)

This boiler has been constructed under Special Survey in accordance with the approved plan & the rules of the Society. The materials & workmanship are good.

On completion the boiler has been tested by hydraulic pressure of 305 lbs. & found tight & sound at that pressure.

It has been dispatched to Malmo to be installed on board the vessel.

Survey Fee

£ 12 : 18 : -

When applied for, APR - 2 1947

Travelling Expenses (if any) £

:

When received, 19

J. T. Kassar

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI, 21 NOV 1947

Assigned

See F. E. Mch. rpt.



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