

REPORT ON BOILERS.

No. 61660

NOV. 1 1939

Received at London Office

1-10-1

26 0
8.19
of writing Report

19 When handed in at Local Office 30. 10. 1939 Port of Glasgow

No. in Survey held at Renfrew

Date, First Survey

Last Survey 19 : 10 : 1939

Book.

(Number of Visits)

Tons { Gross 620
Net

on the T.W. Sc. Tug. "T. H. WATERMEYER"

4-3
ster

Built at Glasgow

By whom built

A. J. Inglis & Co. Yard No. 1021 When built 1939

39

Engines made at Renfrew

By whom made Lottin & Co. Ltd.

Engine No. 1013 When made 1939

Boilers made at Glasgow

By whom made Barclay Curle & Co. Ltd.

Boiler No. 38/11 When made 1939

Nominal Horse Power 397

Owners Union Port. of South Africa

Port belonging to Cape Town

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record 5)

7-3

Total Heating Surface of Boilers

7508 sq. ft.

Is forced draught fitted No

Coal or Oil fired Coal

No. and Description of Boilers

4 - S.E. Multitubular

Working Pressure 20 lb./sq. in.

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 1-2" double opening I.H.L.

Area of each set of valves per boiler

per Rule 5.450"
as fitted 6.280" I.H.L.

Pressure to which they are adjusted 20 lb.

Are they fitted with easing gear Yes

RE

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

ill

Smallest distance between boilers or uptakes and bunkers or woodwork 4'-3"

Is oil fuel carried in the double bottom under boilers -

Smallest distance between shell of boiler and tank top plating Open floors

Is the bottom of the boiler insulated Yes

fact

Largest internal dia. of boilers

Length

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams { end
inter.

Long. seams

Diameter of rivet holes in { circ. seams
long. seams

Pitch of rivets {

Percentage of strength of circ. end seams { plate
rivets

Percentage of strength of circ. intermediate seam { plate
rivets

Percentage of strength of longitudinal joint { plate
rivets
combined

Working pressure of shell by Rules

Thickness of butt straps { outer
inner

No. and Description of Furnaces in each Boiler

Material

Tensile strength

Smallest outside diameter

Length of plain part { top
bottom

Thickness of plates { crown
bottom

Description of longitudinal joint

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

Working pressure of furnace by Rules

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Working pressure by Rules

Tube plates: Material { front
back

Tensile strength {

Thickness {

Mean pitch of stay tubes in nests

Pitch across wide water spaces

Working pressure { front
back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

at centre

Length as per Rule

Distance apart

No. and pitch of stays

in each

Working pressure by Rules

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Working pressure by Rules

Front plate at bottom: Material

Tensile strength

Thickness

Lower back plate: Material

Tensile strength

Thickness

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Working Pressure

Main stays: Material

Tensile strength

Diameter { At body of stay,
or
Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Screw stays: Material

Tensile strength

Diameter { At turned off part,
or
Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Are the stays drilled at the outer ends

Margin stays : Diameter

At turned off part, or Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Tubes : Material

External diameter

Plain Stay

Thickness

No. of threads per inch

Pitch of tubes

Working pressure by Rules

Manhole compensation: Size of opening

shell plate

Section of compensating ring

No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends

Depth of flange if manhole flanged

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

Working pressure by Rules

Thickness of crown

No. and diameter of rivets

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 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

Working pressure as

Rules

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,

Manufactured by

Dates of Survey

During progress of work in shops - -

while building

During erection on board vessel - - -

See Accompanying Machinery Report

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case YES If so, state Vessel's name and Report No. "THEODOR WOKER" GLS.A

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been satisfactorily installed, tested under working conditions at full load and all safety valves have been adjusted to the working pressure of 200 lb/sq. in.

RB
30/10/39

Survey Fee	...	£	:	When applied for,	19
Travelling Expenses (if any)	£	:	:	When received,	19

Committee's Minute **GLASGOW 31 OCT 1939**
Assigned See Accompanying Machinery Report.