

5a.

## REPORT ON BOILERS.

No. 4160

Received at London Office

27 OCT 1933

Writing Report

24/10

1933

When handed in at Local Office

24/10

1933

Port of

Oslo

Survey held at

Oslo

Date, First Survey

28/1.31.

Last Survey

5/2.

1934

6 on the

S/S. SVEND FOYN

Number of Visits

4

Gross 14526

Tons

Net 8032

Built at

Haverton

By whom built

Furness S.B.C. Ltd.

Yard No.

When built

1931

s made at

Hartlepool

By whom made

Richardsons, Westgate &amp; Co. Ltd.

Engine No.

When made

1931

s made at

Oslo

By whom made

G/S. Kvaerner Bryg

Boiler No.

When made

1931

al Horse Power

Owners

St. Helier Shipowners Ltd.

Port belonging to

London.

Rotating whole oil boilers

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Approved marks

(Letter for Record

)

Heating Surface of Boilers

Is forced draught fitted

Coal or Oil fired

General Description of Boilers

8 Rotating whole oil boilers

Working Pressure

60

by hydraulic pressure to

120

Date of test

28/1-5/2.31

No. of Certificate

Can each boiler be worked separately

of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1 off, single spring-loaded 2" dia

of each set of valves per boiler

per Rule

as fitted 2, 24 gpm

Pressure to which they are adjusted

Are they fitted with easing gear

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

Least distance between boilers or uptakes and bunkers or woodwork

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

Least internal dia. of boilers

2600 mm

Length

7015 mm

Shell plates: Material

S.M. steel

Tensile strength

28-35

Thickness

13 mm

Are the shell plates welded or flanged

end fl. flanged

Description of riveting: circ. seams

end. single

inter. double

Seams D.R. single butt strap

Diameter of rivet holes in

circ. seams

23.5 mm

Pitch of rivets

60.3 mm

Percentage of strength of circ. end seams

plate

61

rivets

41

Percentage of strength of circ. intermediate seam

plate

61

rivets

82.8

Percentage of strength of longitudinal joint

plate

68

rivets

133

combined

Working pressure of shell by Rules

6.5 kg/cm<sup>2</sup>

Thickness of butt straps

outer

15 mm

No. and Description of Furnaces in each Boiler

Material

Tensile strength

Smallest outside diameter

Thickness of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

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

Working pressure of furnace by Rules

plates in steam space: Material

S.M. steel

Tensile strength

26-30

Thickness

25 mm

Pitch of stays

are stays secured

Working pressure by Rules

plates: Material

front

back

Tensile strength

Thickness

pitch of stay tubes in nests

Pitch across wide water spaces

Working pressure

front

back

rs to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

tre

Length as per Rule

Distance apart

No. and pitch of stays

h

Working pressure by Rules

Combustion chamber plates: Material

le strength

Thickness: Sides

Back

Top

Bottom

of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

ing pressure by Rules

Front plate at bottom: Material

Tensile strength

ness

Lower back plate: Material

Tensile strength

Thickness

of stays at wide water space

Are stays fitted with nuts or riveted over

ing Pressure

Main stays: Material

Tensile strength

ter

At body of stay,

or

Over threads

No. of threads per inch

Area supported by each stay

ing pressure by Rules

Screw stays: Material

Tensile strength

ter

At turned off part,

or

Over threads

No. of threads per inch

Area supported by each stay

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W126-0021



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 stays \_\_\_\_\_  
Inner radius of crown \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_  
How connected to shell \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_ Diameter of rivet holes and 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 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 \_\_\_\_\_  
Rules \_\_\_\_\_ Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressure \_\_\_\_\_  
tubes \_\_\_\_\_, castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks or valves by which 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, \_\_\_\_\_  
\_\_\_\_\_

Dates of Survey { During progress of work in shops - - - 28/1, 30/1, 3/2 & 7/2. 1931 } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 4/7. 1930  
while building { During erection on board vessel - - - } Total No. of visits 4

Is this Boiler a duplicate of a previous case Yes \_\_\_\_\_ If so, state Vessel's name and Report No. S/S. "ANGLO HORSE"

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

These whole oil boilers were constructed in accordance with approved plans (see plans approved 4/7. 1930 for S/S. "Anglo Horse". The boilers were examined during construction, tested by hydraulic pressure to 120 lbs per sq. inch and found in order. The workmanship is good.

The cast steel material have been made at approved works and tested to the Society's Surveyors.

The boilers were marked:

Lloyd's test  
120 lbs.  
W.P. 60 lbs.  
28/1, 30/1, 3/2 & 7/2. 1931.  
P.B.R. & P.E.

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

Committee's Minute \_\_\_\_\_  
Assigned \_\_\_\_\_  
TUE. 12 DEC 1931  
See also Rpt 4160 a. b. & c.  
Note present Bhs

Engineer Surveyor to Lloyd's Register of Shipping \_\_\_\_\_



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